

SOUTHERN TEXTILE BULLETIN

VOL. V

CHARLOTTE, N. C., MAY 1, 1913

NUMBER 10

WHITIN AND KITSON COTTON MILL MACHINERY

WE HAVE furnished plans, specifications and engineering work for over one hundred and fifty cotton mills in the South. Have furnished machinery and complete equipments for nearly all of these mills, and for as many more designed by other engineers. Our large experience enables us to insure the very best results. A large majority of Southern mills use some of our machinery, many use it exclusively.

KITSON Improved Picking Machinery.

WHITIN Roving Machinery, with Patented Improvements.

WHITIN Cards, Drawings, Railways, Combers, Sliver and Ribbon Lap Machines, Spinning, Twisters, Spoolers, Reels, Looms, Quillers.

CRAMER Air Conditioning System for Humidifying, Ventilating and Air Cleaning.

CRAMER Automatic Regulators for any make of Humidifying and Heating Systems.

MISCELLANEOUS EQUIPMENT: Winding, Slashing and Warping Machinery; Card Grinders; Cloth Room and Finishing Machinery; Nappers; Dye House Machinery; Power Plants; Steam, Water and Electric Fire Protection, Electric Lighting, Humidifying Apparatus, Heating and Ventilating Apparatus, Shafting, Pulleys and Hangers, Belting and Supplies.

STUART W. CRAMER
SOUTHERN AGENT

CHARLOTTE, N. C.

Re-Organization
of
Old Mills
a Specialty

Complete
Equipment for
New Cotton
Mills

OUR RINGS

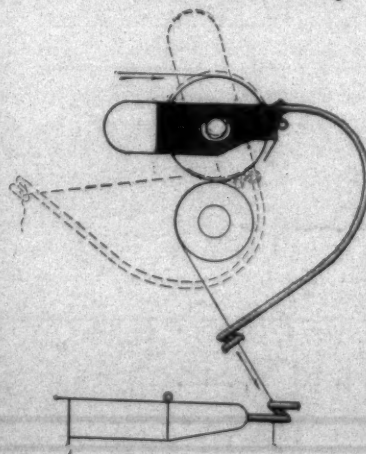
Set the Standard for Quality

THERE ARE NONE OTHERS
"JUST AS GOOD"



MIRROR SPINNING RINGS
TRADE MARK REG. U.S. PAT. OFF.
DRAPER COMPANY
HOPE DALE, MASS.

The Smith Stop Motion for Two Ply Twisting



Eliminates Waste;
prevents roller laps;
enables the help to
tend more spindles;
the only simple device
for the purpose.

Send for Special Circular

DRAPER COMPANY
HOPE DALE, MASS.

SOUTHERN AGENT

J. D. CLOUDMAN • 40 S. Forsyth St., ATLANTA, GA.

Farbwerke-Hoechst Co.

—FORMERLY—

H. A. METZ & CO.

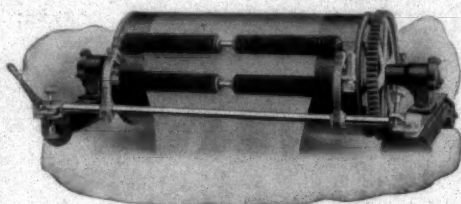
Aniline and Alizarine Colors, Dyestuffs
and Chemicals

Sole Licensees and Importers of the Products of

FARBWERKE, vormals MEISTER LUCIUS & BRUENING
Hoechst - on - Main, Germany

122 Hudson St., - - New York, N. Y. 210 South Tryon St., Charlotte, N. C.
140 Oliver St., - - Boston, Mass. 1418 Empire Building, - Atlanta, Ga.
104 Chestnut St., - Philadelphia, Pa. 20-20 Natoma St., San Francisco, Cal.
23 South Main St., Providence, R. I. 30 St. Fran. Xavier St., Montreal Can.
317 North Clark St., - - Chicago, Ill. 28 Wellington St., - - Toronto, Can.

THE BRISTLE CLOTH STRETCHER



Saves
Time
Labor
Money

Used by Leading Finishers
throughout the country

AMERICAN FINISHING MACHINERY CO.
111 MILK STREET, BOSTON, MASS.

BOSSON & LANE

—Manufacturers—

CASTOR OIL, SOLUBLE OIL, BLEACHING OIL, TURKEY
RED OIL, SNOWFLAKE, SOLUBLE GREASE
FLAXHORN, ALPHA SODA, OLEINE
B. & L. ANTI-CHLORINE, SOLUBLE WAX
BLEACHERS BLUES

Works and Office

Atlantic, Mass.

Manufacturers Should Look Up the Advantages of the

Metallic Drawing Rolls

Over the leather system before placing orders for new
machinery, or if contemplating an increase in produc-
tion, have them applied to their old machinery,

25 Per Cent. More Production
Guaranteed.

SAVES

Roll Covering, Varnishing, Floor Space,
Power, Waste and Wear.

1-3 Less Weight Required

Write for Points Claimed, Also Prices and Particulars to

The Metallic Drawing Roll Co.
INDIAN ORCHARD, MASS.

Scientific
Mining
Methods

Unequaled
Transportation
Facilities

CLINCHFIELD SERVICE

"Never Short of Cars"

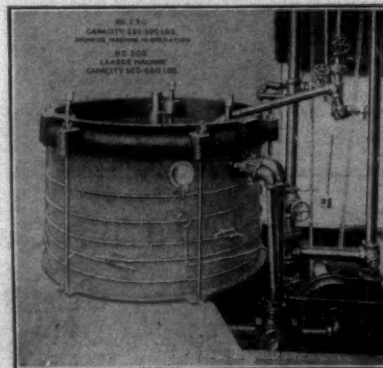
Watchful
Attention to
Deliveries

Expert
Boiler-room
Advice

Mammoth, Summer Storage Plant, centrally located

Economical Cotton Dyeing and Bleaching

In the Psarski Dyeing Machine



Saves Labor
Saves Dyes
Saves Drugs
Saves Steam
Saves Water

Saves
Fibre



Sulphur—Developed—Vat Dyes
Done Equally Well

RAW STOCK DYEING—The cotton goes to cards in as good condition as directly from bales.
Is not rolled into balls and strings.

BLEACHING—Bleached and washed PERFECTLY CLEAN—FREE FROM CHLORIN OR ACID.
3 1/4 hours to batch. Is not pounded and twisted into practically waste.

SKEIN DYEING—No Boiling Out—No Tangles—Yarns are left Smooth and in perfect condition for
winding, knitting, etc.

HOSIERY—Recommended size of machine does 300 pounds to batch, SULPHUR OR DEVELOPED
BLACKS. It is not Roughed—No Singeing required—No Sorting—No Damaged.

15 to 20 per cent Saving in Drugs

The Psarski Dyeing Machine Co.
3167 Fulton Road CLEVELAND, OHIO

SOUTHERN TEXTILE BULLETIN

VOL. 5

CHARLOTTE, N. C., MAY 1, 1913

NUMBER 9

Wasteful Methods in the Cotton Industry

William H. Harriss before National Association of Cotton Manufacturers

WHEN the question of preparing a paper for your Association was first brought to my attention, the subject in mind was, Waste in Cotton Manufacture. However, I soon found that to properly treat this subject, many fields of activity were involved, so I decided to attempt to cover the entire cotton industry. In so doing, I fully realize the futility of any effort to do justice to such a vast subject in the limited confines of one paper, and my excuse is the hope that I might present the problems of the entire industry in such a concise and chronological array that the responsibility for the wasteful methods could best be placed where it belongs—that is with the cotton grower, handler or manufacturer. In this manner I can only point out here the more prominent items of wastefulness, and afterwards review them in a more casual way. I am not unmindful that on any of the point mentioned volumes could be written and lives spent, in trying to solve them.

The important items to be considered in attempting to suggest improvements in the industry are as follows:—

1. Misdirected efforts in farming operations.
2. Lack of care in seed selection
3. Study of soil conditions.
4. Recognition of weather conditions at time of planting.
5. Proper physical location of seeds and plants.
6. Better cultivation of growing plants.
7. More efficient methods of picking, and care before ginning such as ageing.
8. The concentration of ginning plants in larger units.
9. Better ginning and baling.
10. Better handling by compressor transportation companies, etc.
11. More facts about the actual contents of a bale, such as length of staple and percentage of short staple.
12. A national body with authority to settle disputes in the buying and selling.
13. Revolution of picker room machinery, to avoid damaging of fibre.
14. More careful study of waste

15. from each department.
16. Better labor discipline.
17. Elimination of the sample piece abuse.
18. Better general efficiency in processes and management details.

In considering the above rough outline of some of the more important things to be done to bring the industry into a more efficient condition, it will be seen that items (1) to (8) are primarily responsibilities of the farmer, or grower, of the cotton.

It will also be seen that items (14) to (18) primarily concern the cotton manufacturer, whereas the intermediate items (9) to (13) are apparently no-one's business in particular, and therein lies the cause of so much abuse.

I will not attempt to discuss these different headings with too much detail, as the time is limited.

Misdirected Efforts in Farming Operations.

In this connection, it is probably still a fact that a large percentage of the cotton crop of the Southern States of America is produced by the small farmer. In many cases these farmers are located in sections where their efforts could be much better expended on other crops than cotton, but who, in the absence of some guiding hand, will continue for some years to scratch out of the ground a very meagre livelihood. Many farmers have crop habits, and feel that once they have raised cotton, they must always raise it under the same conditions.

There is a vast amount of effort lost also by certain farmers who do not sufficiently concentrate their preparations, following the modern idea of intensified farming. Careful and thorough preparation of a few acres before planting has shown in all cases better results than the same efforts extended over the entire plantation. There is probably no one thought that demands more attention from the Southern farmer than this.

Lack of Care in Seed Selection.

This is a subject that has already been given much consideration, and its importance is gradually being appreciated. There are a great

many varieties of seed, and unquestionably some certain variety is best adapted for each section of the South. A careful study of experiments along this line would

be good in having each section plant the variety of cotton to which it is best adapted. For instance:—It has been found that a type of upland cotton from the weevil-infested regions of Mexico known as Durango has been most promising for certain irrigated lands of Texas and the Southwestern States. It would not follow that this type is good for the Carolinas, or vice versa, that the Columbia variety of cotton planted largely in South Carolina is well adapted to Texas.

Study of Soil Conditions.

It is a fact today that more farmers each year are recognizing the absolute necessity of analyzing their soils for the purpose of finding the proper nourishment needed in the way of fertilizer. While the increase of acreage has something to do with it, yet the fact of a gradual recognition is emphasized by the increase in the sale of fertilizer in the Southern States each year. No one only does the proper study of the soil conditions bring out the amount of fertilizer that is needed, but also to what crop the soil is best adapted and this subject is closely related to the first one regarding Misdirected Efforts in Farming Operations.

Recognition of Weather Conditions

at Time of Planting.

Those who are at all familiar with cotton farming conditions in the Southern States can probably recall certain farmers who always seem to have a good stand and good prospects, and others, irrespective of the season, always claim that they have had a bad one, and the crop will be a failure. Much of this is due to the recognition of weather conditions or lack of some at planting season in the respective sections of the country. The crops are either planted too late or too early. These things naturally vary with localities and while they also vary from year to year in the same locality, yet there is enough repetition of seasons to admit of careful study for the best results.

The Proper Physical Location of Seeds and Plants.

The condition and location of the land, and also the variety of cotton to be planted has much to do with the physical location of the plants as related to one another. On the other hand, there is a sufficient variety of opinions on this subject among different farmers to show that the best arrangement has not necessarily been found. In this connection, it may be necessary in the future to give recognition to the fact in planting, that the cotton may be gathered by machinery, and therefore be located to give the machinery all the advantage possible without detriment to acreage output.

Better Cultivation of Growing Plants and Study of Diseases and Pests.

It has been proven that one final application of fertilizer before the seeds are planted is not necessarily the best method to follow. Much thought can be given to the time and manner of applying fertilizer and proper cultivation during the growth of the plant.

It is not necessary to make much comment in connection with the work that has been done to overcome the diseases and pests of the cotton plant, as all are too familiar with the scare that the boll weevil has given the industry, and the work that has been done in connection with this and other parasites. In this connection, it is well to remember, however, that in a way the weevil has done much good in forcing planters to bestir themselves with the result that they have discovered in many cases they were planting cotton where other crops were better for their given location and they were planting varieties of seed that were not adopted to their section.

More Efficient Methods of Picking and Better Care Before Ginning, Such as Ageing.

Cotton fibre on its original seed has often been likened unto the banana, which ripens after the stems have been cut from the original tree. This comparison is unquestionably right, for it has been proven that much of the seed cotton when picked from the field, gains

(Continued on next page)

Wasteful Methods in the Cotton Industry.

(Continued from Page 3).

additional sustenance and maturity that adds greatly to its spinning value if it is not ginned too quickly. Many of the older and larger planters today follow the practice of ageing their cotton after taking it out of the field, and before ginning. On the other hand, a great majority of small farmers rush their cotton through the gin when it is too green with the result that the fibre is detached before it ripens thoroughly and afterwards the manufacturer finds that it has little spinning value. This, I have thought, is the origin of most of the ribbon fibre we get occasionally in our machinery. Much cotton is also taken to gins when it is wet, with the result of much damage to the fibre while ginning.

Concentration of Ginning Plants in Larger Units.

It has been estimated that there are something like 30,000 gin stands in the Southern States, and upward of a total of 130,000 ginning machines. This indeed is a vast industry, and the only one of such in America today that has not been more or less modernized and exploited, and while there have been improvements in some of the machinery, it yet remains a fact that the industry of ginning cotton has changed very little in its method from the times of our forefathers. One reason for this, as stated above, it has been nobody's business. The farmer has not been primarily interested in the manner in which the lint was taken off of the seed, and the mill man has certainly been too busy, and the industry is too far away, to get much consideration from him, with the result that great abuse has been allowed to exist in the ginning of cotton. These little ginning plants scattered all over the South must go as time passes, and the industry be concentrated into larger business organizations at centralized points. As country roads improve, and railroad facilities are extended, the difficulty of concentrating the seed cotton at large ginning points will be overcome, and these large ginning plants will be looked upon more as manufacturing industries like our cotton mills, with plenty of capital and efficient management to see that the work is done properly.

Better Ginning and Baling.

These large ginning plants will also contain modern ginning machinery, very probably of the improved roller type, which is now on the market, together with gin compresses, and your raw material, as a spinner, will become their finished product, and you will receive it in just the condition that they left it, properly cleaned, properly ginned and properly baled. When this is done, certain ginners will have reputations for bringing out good product, as certain cotton mills have, for the individual efforts will be considered and responsibilities determined. In this manner they will get credit for doing the job properly, whereas, I repeat, today the job is no-one's par-

ticular business. Unquestionably the regularity that many of us have often noticed existing in Egyptian cotton is to be accounted for by the fact that the cotton is properly ginned and handled in big establishments at concentrated points. It may not be too much to say, looking to the future somewhat, that in these manufacturing establishments, whose business it will be to manufacture lint cotton from seed cotton, may also be put picking, carding and combing machinery, and they will ship to the different spinners of the world, sliver or comber laps. I say this because it has been shown that the inexperienced labor of the farming section of the South, whose work is operating gins, can also run carding, picking and combing machinery, under good overseers, whereas it would be many years before they could spin or weave. In this way, these plants will not only become ginning plants, but cotton refining establishments up to a certain degree of refinement. Their finished product will be staples by the inch, rather than cotton by the pound.

Better Handling by Compresses Transportation Companies, Etc.

Much of the abuse for which we have credited the farmer should be laid at the doors of the intermediate handlers of cotton. This particularly applies to the compresses. Certain it is that a large percentage of the particular abuse we have heard so much of in the last few years, of excess bagging and ties, is due to the methods of handling by the compresses. It has also been brought out that the rapid manner in which this work is done at the height of the season results in actual damage to the fibre by the quick expulsion of the air in the bale. It must be remembered, however, in this connection, that for many years the compress has been a necessary evil, and is today. This evil will be with us until we can get a revolution in the methods of ginning and baling cotton at the original points.

The exposure to the weather of cotton by the transportation companies would also be much less if it were not necessary to transfer cotton, but rather let it remain in the same car from the points of origin to its destination. This can only be done when the cotton is compressed at the original ginning point, which in turn can only be accomplished by the advent of larger establishments.

More About the Contents of a Bale Such as Length of Staple and Percentage of Short Staple.

This is the subject that has caused us all so much trouble, gray hair and actual loss of money, — the mooted question of what is inside of a bale of cotton. We always find leaf and trash, oftentimes dirt and sand, frequently water, occasionally rocks or stones and on certain stated times a chicken or negro boy. But how about that commodity—staple, for which we paid our money? It is probably not going too far to say that we

cotton manufacturers really know less about our raw material than any class of manufacturers in the country. I have always contended that we should give more thought in the future about the contents of a bale, and not spend so much time, as we have in the past, with arguing about the tare of the bags and ties. If it happens that a man ships you a bale of cotton with 30 pounds of tare, when he only has a right to ship 22, then you are arguing over 8 pounds at say 20 cents, or a total of \$1.60. This, of course, is quite an important amount, but is insignificant if the particular bale under discussion, which is often the case, is stapled to be 1 3-8 inches long, where only a very small percentage is this length, and the balance short and wasty staple. This may mean \$5.00 or \$10.00 a bale and should certainly deserve a greater portion of our thought and study. Unquestionably many bales of cotton invoiced and received on the same lot and class vary in intrinsic value from \$5.00 to \$10.00 a bale.

The present method of stapling cotton by hand is inadequate, and in a way can be compared to the time before Whitney, when the cotton was ginned by hand, and the industry was young. Some method must be developed to staple cotton and analyze the percentage of moisture, waste and short staple by machinery, and while nothing definite can be said on this subject, here, yet the writer knows that certain well defined attempts have been made in this direction, sufficient to hold out some slight hope for the final solution of this most important problem.

A National Body With Authority to Settle Disputes in Buying and Selling.

In the present condition of the trade, when the contents of a bale of cotton must be settled by the variable personal opinion of individuals, it is to be regretted that some national body cannot be organized, with authority to settle disputes, or better still, to pass upon every bale of cotton and stamp its grading and staple thereon, before it gets into the markets, something in the manner of the Silk Conditioning Committee in Milan, Italy. It is true that today in the grading of cotton we have the classification committees of the exchanges, but they will take no position in regard to other things than grade. They do not recognize staples except in a very inadequate manner, under the head of Gulfs. In this connection it would seem that the future must bring forth a recognition by the exchanges of staple cotton, for as time goes on we will cease to buy cotton by the pound except as a medium of exchange, but the real trade will be in buying staples, somewhat in the manner that today coal is purchased by the large users. They do not buy by the ton except as a basis of exchange, but by the real intrinsic value, determined by the number of British Thermal Heat Units in a given quantity. Something must be done in this connection, for it has been

established that there are something over two hundred varieties of types of cotton planted and raised in the South each year, and as the situation becomes more complicated we must know more about the length of staple of each variety. If we cannot get the exchanges or the Government to take some action, then the cotton manufacturing industry as a whole will be forced to elect a body like the Board of Insurance Underwriters of Chicago, where problems of the trade are laid before them for final opinions before adoption.

Aside from stamping this approval or decision on a given bale of cotton, such a body could be of much service in rendering opinions as to the value of certain efforts that are being made to solve some of the problems that we have before us. One reason why the cotton growing and ginning industry has improved so slowly, is that those people who are really attempting to make improvements, and they are many, have no final body before whom they can lay the results of their effort for scientific and just decision.

Revolution of Picker Room Machinery to Avoid Damaging Fibre.

Very little will be said on the manufacturing, as concerns the processes through the mill, as these are too well understood by you, and are not pertinent to this paper. I will point out, however, that we must not expect all the improving to come from the other end, and where we do have damaging conditions in our mills, they should be righted. I have always claimed that one of those conditions exists in our picker room. Unquestionably, picker room machinery has not kept pace with the improvements in other processes of the industry, and much remains to be done in this department. Perhaps you have been impressed with the fact, as I have, that in discussing the subject of the cotton industry from the time the seed goes in the ground until the finished cloth is delivered to the customer, the one paramount consideration is the conservation of the length and the strength of the original cotton staple, and while we are asking the farmer and the ginner and the handler to conserve this length, it certainly behooves us to do everything within our power to act accordingly.

More Careful Study of Waste From Each Department.

Now we come to the subject about which it seems we all like most to talk, and apparently very few have any real knowledge. It has been said in jest that the lawyer's mistakes swing six feet in the air, and the doctor's mistakes are buried six feet in the ground, and I should say that the mill man's mistakes are hidden six feet in the waste bin. If I were asked to pass upon how any mill is being operated, with the privilege of examining only one department before expressing an opinion, I should request to be shown into the waste house. I have always thought that if the average mill did not usually consider putting their waste house in the darkest and most out of the

way place around the premises, as is the common practice, but instead, should give it the greatest possible exposure, it would show a great decrease in its annual loss. The observant waste dealer probably knows much about how the average mill is run, and this may be the reason why we all like to keep on the good side of him, for he might do some talking.

As to the manufacture of this waste from the different departments into salable products, I will say that this is an industry within itself, and for its proper manipulation unquestionably requires more skill and experience than does ordinary cotton manufacture. It is a subject, however, that we are being forced to consider more seriously each year. Certain manufacturers and machine builders are attempting to keep abreast of what is going on, the world over, looking to the day when their by-product in the present form of waste, will leave their plants in some class of manufactured merchandise, instead of a waste product of raw material.

Better Labor Discipline.

Since there has been such a shortage of efficient labor in our industry, certain abuses have been allowed to develop that need serious attention. I think it is incumbent upon the managers of plants to decide if they are not more or less responsible for the conditions. We put up to our superintendents the problem of properly running the inside of the mill. He, in turn passes on to his overseers the question of the proper manning of machinery, and processing, and under the stress of circumstances, brought about by the scarcity of skilled labor, the average overseer is between the upper and nether millstones. If he does not get labor, his job is in danger, and if he gets labor and watches them closely, he cannot keep them. The result is there has been a breaking down of the usual discipline that was in force years ago, insofar as little abuses have crept in. The help are allowed more freedom in leaving their machinery before stopping time, and running around their room, with the result, instead of getting a full week's running time of machinery, the percentage is decreasing every year. It would seem that a close relation between the managers, superintendents, and heads of departments, in solving this problem, would be beneficial to all concerned. I am glad to know you have a paper prepared on this very important subject.

Elimination of Sample Piece Abuse

Owing to the condition of business for the last few years and stress of attempting to keep machinery running, another abuse has developed, in the form of too free execution of sample piece orders. Unquestionably, on a certain class of fabrics, sample pieces have to be made before business can proceed, but the indiscriminate making of sample pieces cannot do other than injure the markets, by misrepresenting the actual amount of goods that can be purchased, to say nothing of the great increase in manufacturing cost occasioned

by so many sample pieces. It has been suggested that in addition to the actual quotation price on a sizable order for a given cloth, the original order taken for samples should carry with it an arbitrary sum of, say, \$10, per sample piece, over and above the yard quotation for the cloth. If people ordering sample pieces realized they had to pay \$10 for the privilege of having a sample made, which, by the way would not always cover the expense by any means, they would be more careful in their decision to have sample pieces made, and would look more carefully into the possibility of developing actual business in that line.

Better General Efficiency in Processes and Management Details.

Whether we believe in the much discussed question of the time—Efficiency Engineering—or not, I am satisfied that the manager who takes the position that there is nothing in it for him, will awake to the fact some years in the future that he was mistaken, and he is out of the race. Much that has been written on the subject is not pertinent to cotton manufacture but there is good for all in the general movement, and we should all give attention and pick the good for our individual cases.

In conclusion I want to say that the problems that I have attempted to present to you here, are many and manifold, and the proper solution of them will take much time and labor, yet I do not want you to be unmindful of the tremendous amount of splendid work that is being done to overcome them. Many people are up and doing, to right these troubles, and I would feel very thankful if, in presenting this paper, I have impressed you with the large amount of good work that the United States Department of Agriculture is doing to solve some of the problems that have been presented here. I will also be thankful if I can impress you with the necessity of giving encouragement to the work that this department is doing, as well as a great class of earnest ginners and farmers in the South. You are all familiar with the good work done in establishing grades of cotton by the Government. I understand now that the problem of deciding the intrinsic differences in the value of these Government grades is being undertaken. The New York Exchange makes arbitrary fixed differences in their grades of cotton at stated times of the year. The New Orleans Cotton Exchange makes commercial differences from day to day, based on the market conditions in Southern points, but it is most important that we know what the actual intrinsic differences are, and this is what the Government will attempt to solve by a series of tests. Textile schools could also do much good in this connection.

These things, as I say, show that the problems are being dealt with and well they are, for we cannot afford to sit idly by, feeling, as it were, in a secure position as regards our monopoly of the world's supply of cotton, for who knows what the future may bring forth

in an increased production of cotton fibre in other countries of the world. Much is being said, for the moment, about the advent of the Anglo-Egyptian Sudan as a great cotton producing section of the globe, and I am sure if we do not keep abreast with modern tendencies of improvement, we will lose that monopoly. In this connection it will be interesting to give here the "Conclusion" from the results of cotton experiments in 1911 by the United States Department of Agriculture, as outlined in Circular No. 96, of the Bureau of Plant Industries.

"Improved varieties of American Upland cotton bred by the Department of Agriculture and sent out through the Congressional Seed Distribution are being utilized for the improvement of the cotton industry."

"New types of Upland cotton, introduced from weevil infested regions of Mexico and Central America, have been acclimatized in the United States and have given excellent results in Texas and other Southwestern States."

"One of the new varieties from Mexico, called Durango, is the most promising Upland long-staple cotton for irrigated districts. Long-staple cotton is likely to become one of the most important crops in the irrigated regions of Texas and other Southwestern States."

"Cotton growing communities have much to gain in co-operative organization for the production and marketing of a single superior variety of cotton."

An improved method of distributing select varieties has been devised to avoid waste and encourage the production of superior fibre on a community basis.

The necessity of continued selection to preserve superior varieties has been demonstrated and improved methods of selection have been devised.

The value of distinctive characters that enable the plants to be recognized in the field is being taken into account in the breeding of varieties.

Cultural methods are suggested for avoiding malformations of young seedlings, which often delay the development of the plants and reduce the yield.

Several methods of utilizing superior first-generation hybrids between Egyptian and Upland varieties of cotton are being tested, including the propagation of such hybrids from cuttings.

Experiments have shown the possibility of controlling the development of vegetative branches by thinning the plants gradually and restricting the supply of water in the early stages of growth.

The Egyptian type of cotton proves to be less susceptible to the shedding of the buds and young bolls than the Upland cotton, which is an additional element of security for the crop.

Differences in habits of growth and methods of picking render the Egyptian cotton superior to the Upland type as a family crop.

The successful production of Egyptian cotton in Arizona and

southern California does not justify expectations of similar results in Texas, where the conditionings are essentially different. The Durango variety is preferable for irrigated districts in Texas."

I also give below parts of a letter I have recently received, showing what is now being done on still other problems.

"If the waste points in manufacturing are as numerous and apparent as those that occur in growing, handling and marketing, there can be no question as to the need for improvement from the field straight through to the mill."

"The work in my charge has for its object the improvement of the present system of ginning, handling, grading, baling and marketing of cotton by educational and demonstrational methods. We are carrying on investigations on various subjects which look toward the ultimate organization in cotton communities of growers' associations. The first purpose of this work is to encourage the production of a single variety in each locality in order that more uniform staple may be produced and that there may be less mixing of varieties in the fields and at the gin. At present a variety of high value because of a long staple, soon deteriorates through cross pollenization with short staple varieties so that its value is greatly impaired."

"We are also carrying on experiments in the storage of seed cotton on the farm for the purpose of improving the fibre if possible, and of reducing wastes which occur under the present method of immediate ginning after picking. During the present season we carried on a storage experiment in Marlboro County, S. C., extending from the first of October into December, determining the temperature variation in the cotton, its moisture content and the effect of the storage on seed germination. We have also in stores for early spinning and waste tests, bales of cotton ginned from seed cotton stored under various conditions and in bales of various size ranging from 5,000 to 40,000 pounds. Many important benefits have been claimed for ageing and "sweating out" cotton in the seed for from two to five weeks."

"The work which we shall carry on from year to year should give us valuable information on the subject. This much can be said with confidence: stored cotton can be ginned more rapidly with less injury to the staple than can freshly picked cotton, especially during the early part of the season; the loss of time of men and teams through standing at the gin awaiting their turns can be greatly reduced; pure strains of seed can be maintained readily through doing away with mixing at the gin; and loss to good farmers through planting their good bales with lower grade or shorter staple of less progressive farmers can be obviated. This evil of the present system injures especially the good planter who deserves encouragement to the full value of his staple because the buyer sampling both sides of the bale will never give

(Continued on Page 18)

Practical and Efficient Spinning

The Prize Winners.

The other judge from whom we had not heard last week later reported, that on account of sickness he had been unable to read all of the contest articles and was unable to make a decision.

We are, therefore, obliged to award the prizes in accordance with the decisions of the five judges that did report.

Their votes were as follows:

Judge No. 1

Best—"Learner" (No. 3)

Second—"Bill" (No. 23)

Honorable mention to W. J. O. (No. 14), One-day-hope-to-be (No. 13), P. C. B. (No. 19), B. (No. 17).

Judge No. 2

Best—"Bill" (No. 23)

Second—"Johnnie" (No. 1)

Honorable mention to Progressive (No. 7), J. C. E. (No. 5), G. C. T. (No. 28), E. L. G. (No. 29).

Judge No. 3

Best—"Ga.-Ala." (No. 32)

Second—"Anchor" (No. 33)

Honorable mention to J. H. M. (No. 24), Indian Head (No. 38), Indigo (No. 20), J. C. E. (No. 5).

Judge No. 4

Best—"Good Luck" (No. 15)

Second—"Learner" (No. 3)

This judge did not name those for honorable mention.

Judge No. 5

Best—"Bill" (No. 23)

Second—"Ga.-Ala." (No. 32)

Honorable mention to Johnnie (No. 1), W. J. O. (No. 14), Indigo (No. 20), and Band Boy (No. 25).

In accordance with the rules of the contest each vote for first place counts 1 vote while each vote for second place counts $\frac{1}{2}$ vote.

The vote therefore stands:

"Bill" 2½ votes.

"Ga.-Ala." 1½ votes.

"Learner" 1½ votes.

"Good Luck" 1 vote.

"Johnnie" ½ vote.

"Anchor" ½ vote.

Substituting the names of the writers for the assumed names we have:

B. W. Bingham, Marshall, N. C. 2½

Chas. M. Stoy, Anniston, Ala. 1½

W. R. Ennis, Charlotte, N. C. 1½

Jno. S. Lockman, Avondale, Ala. 1

R. J. Belue, Woodruff, S. C. ½

W. W. Becknell, Rome, Ga. ½

Winner of First Prize

B. W. BINGHAM,
Marshall, N. C.

Tied for Second Prize

CHAS. M. STOY,
Anniston, Ala.

W. R. ENNIS, JR.

Charlotte, N. C.

As Mr. Ennis is in our employ we have sent Mr. Stoy the entire amount of the second prize but will also give Mr. Ennis \$2.50 which is half the amount of the second prize.

Although Mr. Ennis is employed by us there was nothing in the rules to prevent his competing for the prizes. He wrote the article while on the road and it was published like the others under the assumed name of "Learner." The judges had no way of knowing who wrote the articles and Mr. Ennis who is an expert spinner won entirely upon the merit of his article.

Honorable Mention.

Those who were given honorable mention were as follows:

J. W. Ouzts, Greenwood, S. C. (by two judges).

R. H. Banks, Roanoke Rapids, N. C.

E. W. Wright, Pell City, Ala.

C. M. Bowden, Jacksonville, Ala.

T. L. Saunders, Jr., Kannapolis, N. C.

J. C. Edwards, Rome, Ga. (by two judges).

T. C. Gore, Columbia, S. C.

E. L. Goble, Rock Hill, S. C.

J. H. Mayes, Fitzgerald, Ga.

E. H. Rodgers, Atlanta, Ga.

G. B. McCracken, Summit, Miss (by two judges).

R. J. Belue, Woodruff, S. C.

F. E. Blair, Prendergast, Tenn.

Guessing Prize.

The winner of the \$2.00 prize for guessing the winner of first prize goes to H. C. Mason, Wilmington, N. C., who was the only man to guess that the article signed "Bill" would win first prize.

The number of guesses received for each article:

B. W. Bingham (Bill) 1

Chas. M. Stoy (Ga.-Ala.) 11

W. R. Ennis, Jr. (Learner) 2

Jno. S. Lockman (Good Luck) 9

Jno. Curwen (Tim Bobbin) 4

L. L. Hurley (Whipple) 4

E. H. Rodgers (Indian Head) 3

Geo. F. Breitz, (spindle) 3

J. W. Ouzts (W. J. O.) 2

R. H. Banks (O. d. h. t. b.) 2

J. C. Edwards (J. C. E.) 2

W. W. Becknell (Anchor) 2

T. C. Gore (G. C. T.) 2

J. H. Mayes (J. H. M.) 1

W. P. Lovitt (W. P. L.) 1

A. H. Bouknight (Son) 1

F. E. Blair (Band Boy) 1

R. J. Belue (Johnnie) 1

G. W. Brigman (G. W. B.) 1

C. M. Bowden (B.) 1

P. P. Jones ("No. 44") 1

It will be noted from this list that there was a great difference of opinion among our subscribers relative to the best article and there can be no doubt that there was very little difference in the quality of the articles submitted.

This has undoubtedly been one of the best contests ever run and the articles contributed have been unusually good.

Winner of First Prize

by

B. W. Bingham, Marshall, N. C.

The successful operation of spinning rooms calls for men who are strictly business both on and off the job. We must control ourselves in regard to our tempers and treat all of the help like we would like to be treated. We must not have pets as this will upset things faster than we can adjust them and they will soon be worthless to us. When we get to this point we are worthless to any

mill. I find from 15 years' experience in managing help that the only way is to treat all of the help in a kind and business-like manner and teach them that we mean what we say. It is not very hard to teach them this. All we have to do is to do just what we say and they will soon know what to expect and what not to expect. We must not spend any time talking to the help except on business concerning the mill and their welfare. If we go around telling funny tales to the help they will soon look for this instead of work. Sometimes we speak before we should. We should be careful and consider things before acting, as we may act the wrong way. Never make promises unless they can be filled. If we make false promises we give the help a starting point to criticise us and they will soon know all about it. We should train our second hands to be firm but kind with the help and not allow them to make promises that cannot be fulfilled. The overseer should give the second hands orders to work by and see that he fills them. Do not allow the second hand, when giving orders, to say that the boss said so, as this will soon ruin his influence with the help and he will soon be worthless to any mill. Train the help to report anything that is not going right with their work immediately. When a new hand comes in take special pains to explain to him the rules he must work under before putting him to work. Be sure that he understands the rules, put him to work, and explain what he must do and must not do. We should do all we can to impress upon the minds of the help what it means to their welfare as well as the mill's, for them to do good work in every respect.

Oiling is one of the most important items in the spinning room. Why? Because without oil we cannot run the spinning room, with half oiling we cannot run but half of it, and with half oiling the machinery will not last half as long as it should. Oil is cheap and labor is cheap, considering the price of spinning frames, so it is very important that we give this point our attention by using good oil and seeing that it is applied at the proper time. Spindles should be oiled every two weeks, if only on day time, and every week if on both night and day time. If we were sure we could get them oiled properly, it would not be necessary to oil them so often, but as we cannot be sure that they are oiled properly,

W. H. BIGELOW

AGENTS FOR

ASHWORTH BROTHERS

Tempered and Side Ground Card Clothing

Tops Re clothed. Lickerins Rewound. Cotton Mill Machinery Repaired.

12 to 18 West 4th St., Charlotte, N. C.

127 Central Avenue, Atlanta, Ga

it is better to be on the safe side. We all know that a dry spindle will not produce good yarn, nor will the work run well. A good light oil must be used for spindles or they will gum up and run badly. Use a non-fluid oil for the steel roll necks should be oiled once each day, the top rolls once per day, the back steel roll and top rolls once every week. All rolls and stands should be cleaned before oiling. Have a system for picking and cleaning all rolls at a regular time. Have the cylinder and gearing bearings oiled before starting time, morning and night. The overseer should spend a few minutes inspecting the oiling every day in order to know that it has been done properly.

Banding a spinning frame is an important item and we cannot give this point too much attention. Bands should be made of roving and uniform in size and twist. Have them tied on as near the same tension as possible. It is a well known fact that a slack band will make soft yarn, which is waste and will cause bad running spinning as the speed of the spindle is not up to the standard and different spindle speeds call for different weights of travelers. This being the case it is impossible to have good running spinning with tight and loose bands on our frames. A band tied on too tight will absorb power unnecessarily. The knots should be tied so they will not present much obstruction in passing round the whorl, as a big knot will cause a jumping motion, which will cause the ends to break down, which means waste and unnecessary piecing up of ends.

Rings and bobbins are very important to good running spinning. The bobbin must not be too small in diameter for the size of the ring, as a bobbin that is too small will tend to pull the traveler toward the center of the ring instead of drawing it around the ring as is desired. So if the bobbin is too small in diameter it will cause uneven or strained yarn and bad running work. For 1 1/2-2 inch rings making 30s to 40 hosiery yarn, a filling bobbin not less than five-eighths inch in diameter will run well unless we are using a good grade of cotton. From 1 in. to 1 1/8 in. staple for warp yarn I would use with just allow one minute to doff a frame of 224 spindles. Divide the frames and have each boy clean his part of the frames. Have the rockers cleaned every morning. After getting a round doffed, have each boy to take all bobbins down off the creels on his frames. Also have the bobbins picked up off of the floor if they have dropped any. This will tend to teach the boys to pick up a bobbin when they drop it. I think it is well to allow the boys some play time as they work much better than they will if they never get a minute's rest.

Draft is a very important item, as excessive draft will cause uneven yarn and bad running spinning. The draft should not exceed 12, and 10 to 11 is much better for double roving. I find from various tests that standard twist is best, as too much twist tends to weaken the yarn and destroy the elasticity. We should not run an excessive speed and produce waste and not yarn, as this makes trouble for everybody. A 1 5/8 in. ring a bobbin not less than 7/8 in. in diameter for 30s to 40s—the above is for 6 in. traverse. Travelers play an important part to good running spinning, and we

should give them close attention. If the traveler is not the right circle, the friction will be greater from an empty bobbin to a full bobbin, owing to the fact that the empty bobbin pulls the traveler toward the center of the ring, which causes more of the traveler to come in contact with the ring. After the bobbin is half full the yarn tends to pull the traveler around the ring, and lessens the friction greatly. We must judge the traveler by experimenting as conditions vary.

Doffing plays an important part in the production of our frames. To get the best results use four doffers and a head doffer on each section, having each boy to piece up his side and not allow him to tear down over five ends, and have him to leave no ends down. Have but one frame stopped at a time, and concerned and causes discontented help. Every end that is put up makes a thick place in the yarn.

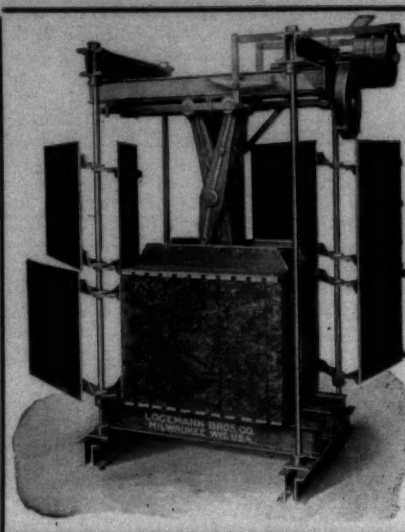
The build of bobbins is a very important point, as badly built bobbins will cause excessive waste and loss of production. If the taper is too long the frame will be stopped more times during a week to be doffed. If the traverse speed is too fast or too slow the bobbin will be soft, as the yarn will ride on one another, the thread will be crossed.

In order to make a good quality and quantity of yarn we must give our rolls careful attention. See that they are properly covered and that good material is used on them. Keep good rolls in the frame; keep out bad rolls as they will make the ends run badly. When there is nothing else wrong do not allow the spinners to replace them, but have the section men to do this. Train the spinner to bring the roller to the section men immediately. When oiling rolls we should be very careful not to get oil on the leather of the rolls as this will rot the leather and shorten their life.

We should have our frames overhauled once a year. The frames should be lined and leveled, spindles plumbed at top and bottom and guide wires set. The steel rolls should be taken out and cleaned every six months. Cleaning is surely one of the most important things in the spinning room as we cannot produce clean yarn on dirty frames. The roll clearers, spindle rails, guide boards, creel boards all should be cleaned systematically. The spindle rails should be cleaned with a brush and not with a broom as a broom will upset the fly and cause slubs in the yarn. The floor should be kept clean as a clean floor and ends all up makes things look good, and they are good when they are going this way. We should not allow the spinners to drop white cotton on the floor. If we allow two or three pounds of this cotton wasted each day we are making ourselves expensive to the mill.

Waste is an important item and by giving it our careful attention we can save our salary. Nothing makes a spinning room look worse than to see cotton all over the floor and we may rest assured that our work is not satisfactory if we allow this. We should inspect the sweepings before having them carried out. Keep hard waste down to a medium amount. If we make an excessive amount we are expensive overseers as this waste has the labor cost added to the cost of cotton and is only worth about six cents per pound, so we do not have to make very many pounds of this waste to spend our salary.

"Bill."



Yarn Baling Presses

All Steel Constructed

Are you still operating an old style, slow, cumbersome baler, which costs two to three times the labor and time that a modern, rapid, power press would? You would not use ancient machinery in your other departments, why not economize in baling? Our improved presses can be installed at a low cost.

Logemann Brothers Co.

303 Oregon St., Milwaukee, Wis.

Southern Representative:

J. H. MAYES, Charlotte, N. C.

H. W. Butterworth & Sons Co.

PHILADELPHIA, PA.

BUILDERS OF MODERN

Bleaching, Dyeing, Drying, Finishing and Mercerizing Machinery

THE HIGHEST STANDARD BOTH
IN DESIGN AND CONSTRUCTION

ESTIMATES FURNISHED

CORRESPONDENCE SOLICITED

A. H. WASHBURN, Southern Agent

Suite 800-806 Realty Building

CHARLOTTE, NORTH CAROLINA

Tied for Second Prize

by

Chas. M. Stoy, Anniston, Ala.

Practical and Efficient Spinning is the result of useful and practical knowledge and theory applied in the manufacture of yarns under various conditions, as these conditions exist and present themselves. In short it is up-to-date spinning. However, in order to have such spinning, the cotton should be properly mixed, picked and carded. The rolls on the drawing frames must be set according to the length of the staple and weight of the sliver being drawn, and condensed just enough to pull well on the back of the slubbers and draw evenly through the rolls. Slubbers, intermediates and roving frames should have the rolls properly set and drafted, having the proper twist, lay and tension gears for the number of roving being made, which is necessary to produce smooth, even roving.

A spinner may be ever so up-to-date, yet if faulty and uneven roving is turned over to him, faulty and uneven yarn will result, for spin-

ning is not all done in the spinning room. In fact, the spinning frame is only the finishing process in producing yarn. We will now proceed with the process of spinning, with the supposition that the roving is what it should be.

Successful spinning depends on constant vigilance, good management, practical knowledge, system and discipline on the part of the overseer, second hand, and section men, and co-operation, obedience and good will on the part of the help. Cleanliness, system and care in producing good work, are points of great importance which should be impressed on the minds of the help, so that they will understand that the right way is the only way to make good work.

Management and Cleaning.

These are very essential for success of a spinning room and both overseer and second hand should strive to manage their help in a firm kind way, that each hand will respect and obey their orders. Avoid partiality and familiarity. Get their confidence and lead them. Teach them that their work will be better and run better if it is kept clean.

On coarse numbers the back

leather rolls should be picked once a day and the front rolls twice a day. All top rolls should be cleaned early in the morning after starting time and front leather rolls again immediately after the noon hour. The bottom steel rolls should be cleaned and stands picked once each week, usually on Fridays. The thread guides and roller beam should be wiped at least four times a day. The sides should be brushed with a broom about every hour, and on fine work the spinners should use waste instead of a broom in cleaning the sides, as flyings from a broom often go into the yarn. Top rolls, or lever weights, should be cleaned once per week. Top clearers should be picked every hour on coarse work and every two and a half hours on fine work. Spinners should put this waste in a box and not throw it over the alleys. Clean separators and ring rails two or three times a week, according to the numbers being spun.

The rockers and underwork of the frame should be cleaned once a day by the doffers, heads and foot ends four times a day. The floor should be kept clean at all times, as this adds much to the looks of the room. Insist that the floor be clean and that all oily waste and sweepings be carried out before stopping time at night, taking the oily waste to the boiler room and sweepings to the waste room.

Oiling.

Oiling and banding are two very important items and should receive especial care by the oiler and bander. He should be a reliable and painstaking fellow who can understand the importance of work well done. All bearings, draft gears, jack gears, pulleys, heart motions, cylinders and front steel roll stands should be oiled the first thing after starting time each morning. After oiling around he should go over the frame and tie all the bands that are off the spindles. Each band should be the same size and have the same amount of twist, and be tied on the spindle reasonably tight, with a small lock knot, giving the spindle a uniform speed and preventing slippage. Roving bands are preferable to yarn bands, as when they become stretched and worn they will fall off the whorl, therefore producing less soft yarn than yarn bands.

Roving Traverse.

The roving traverse should be examined often and set so that as near the whole of the boss of the top roll will be traversed by the roving as possible, and never allowed to remain out of fix for any length of time as it will hollow out the top rolls and make lumpy and uneven yarn and not draw even.

Oiling Top Rollers.

After the oiler has finished banding around and the spinners have finished picking their rolls, the oiler should oil them. He should be very careful not to get oil on the leather bosses. A good heavy oil should be used, preferably non-fluid oil, as one drop of this is sufficient on each end of the roll and two on the saddles, and thus forms a lasting lubricant on coarse work. The front roll should be oiled once each day and the back and middle rolls three times each week. On medium yarns the front roll once per day and the middle and back rolls twice a week.

Travelers.

The proper weight of the travel-

er is a very important factor in the production of yarn and good running work. The selection of the traveler depends on seven conditions, viz.: number of yarn being spun, speed of spindles, quality of staple of cotton, amount of twist wanted, diameter of ring, and whether a round or square traveler is to be used. If any one of these conditions are altered, it will affect the weight of the traveler needed. Square pointed travelers are generally about one number heavier than a round pointed one of the same number. Should the overseer have any trouble in finding what weight traveler is needed, he should obtain a table giving the number of travelers to be used on different numbers of yarn on different size rings. This does not always give the correct traveler for his use, but will put him very near to what he needs and he should find what number is best suited to his needs by testing a few different weights. On fine yarns it is not necessary to change travelers as they will fly off after running awhile. On coarse work they should be changed when they have become worn enough to chafe and cut the yarn. This depends on the speed of the spindle and the condition of the rings. Therefore, there can be no set rule as to when to change travelers.

Spindles.

Spindles should be oiled every two weeks to be sure that every spindle is well oiled. Some spindles will run dry quicker than others, especially when a band is too tight. If not kept well oiled they will soon begin to wobble and jump, which will cause the work to run badly. In a very short time spindles and bolsters will have gone to the bad. I once worked in a large spinning room which had been allowed to run without properly oiling spindles. Consequently a large per cent of the spindles and bolsters had to be replaced.

Thread Guides.

Thread guides should be set so that the back part of the eye will come directly over the center of the top of the spindle and raised or lowered to the best running position when the ring rail is at the top of the bobbin. They should be kept in line with each other.

Doffing.

Doffers should doff every other row of frames so that only one row of frames so that only one spinner at a time. In order to get production from frames, doffers should start to doffing promptly when frames are full and doff frames speedily in rotation, being careful to break as few ends down as possible, as production depends on how frames are doffed and the length of time the frames are stopped. When doffers have gotten around they should pick up all bobbins which have fallen on the floor and put them where they belong. Once or twice each day they should take out the white waste from the waste boxes and pick same before emptying. The creels should be wiped off once each day by the roving man and tangled pieces of roving taken down. The roving should be placed on the frames three layers high with a space at the ends and the middle of cones left for empty bobbins. Empty bobbins should be taken down often and creels kept in a nice tidy condition, which adds much to the appearance of the room.

In conclusion will say that spin-

THE SEYDEL MANUFACTURING CO. JERSEY CITY, N. J.



Sizings and Finishings
PHILADELPHIA

FOR ALL TEXTILES

Soaps and Softeners
ATLANTA

CHAS. S. TANNER CO. PROVIDENCE, R. I.

Established 1886

MANUFACTURERS OF STARCHES, GUMS, DEXTRINES.

SPECIALTIES FOR

SIZING, SOFTENING, FINISHING, WEIGHTING, ETC.

Southern Representatives

BYRD TEXTILE MACHINERY & SUPPLY CO.
DURHAM, - - N. C.

Danker & Marston BOSTON, MASS.

"Everybody's doing it. Doing what?" Boosting the merits of **DM** Gum Tragasol as soon as they have made one thorough test.

KALLE & CO., Inc.

530-36 Canal Street, New York

SPECIALTIES:

Indigo K. G.---Thion Indigo Blue B. P.
Bengaline B.

Vat Colors---Thio Indigo Colors

All Kinds of Sulphur, Direct and Basic Colors on Cotton

A. KLIPSTEIN & COMPANY

644 Greenwich Street

New York

Branches: Chicago Philadelphia Boston Providence Charlotte, N. C.
Canadian Representatives: A. Klipstein & Company, Limited, Montreal

DYESTUFFS AND CHEMICALS

Sizing and Finishing Materials

Potato Starch Dextrine Soluble Oils Bleaching Detergent

COAL TAR DYES MADE BY THE
SOCIETY OF CHEMICAL INDUSTRY, Basle, Switzerland

Manufacturers of

CIBA and CIBANON FAST VAT DYES
For Dyeing and Printing Cotton and Wool

SYNTHETIC INDIGO

INDIGO PASTE

ners should be taught to make good pockets to put waste in and not put pieces, to be attentive to their white waste on the floor. The room work, and not allowed to make un- should be equipped with a good necessary waste by cutting two or system of humidifiers and humidity three layers of roving off bobbins and temperature kept as near a They should wear aprons with large given standard as possible. Over-

scers, second hands, section men should set good examples and be careful and kind with the help, yet firm, always trying to increase the efficiency of the help. Always bear in mind that in order to have practical and efficient spinning, they should be up-to-date men, alive to the fact that waste should be kept down as much as possible at all times and that quality and quantity at a reasonable cost with successful management reflects their efficiency as spinners.

Ga.-Ala.

Tied for Second Prize by

W. R. Ennis, Charlotte, N. C.

I have had practical experience as a spinner and will try to give the best ideas I have about it. When I go into the spinning room at 5:45 a. m., the first thing I do as I enter the door is to notice the shafting and see that no counter belts are off. Then I place my help and have everything in full operation by 6 a. m.

Efficiency means the road to success. An overseer to be successful must first know the weak points in his machinery and how to adjust them to produce good running work. He must be firm in his conversation regarding any business transactions concerning his room and those employed there. I do not consider an overseer competent who has to depend on his second hand and section men. The little things in a spinning room are the things which count. An overseer cannot take good roving and produce a good yarn if he does not understand his machinery.

I will give a few points on things which makes bad running work. Take the creel to start with. Always see that your skewer sets are all in, for if a skewer set is out or broken, the section man will come along and sharpen the skewer to make it run, which takes the stretch out of the roving. If the skewer does not turn freely when a bobbin of roving is being drawn to the rolls, it will take the stretch out of the roving every time and make uneven yarn. As to the draft, do not draw over 11.60 on any number, that is, where the yarn is made of double roving. I always draw 10 where the card room can keep up. I find in most of the fine yarn mills that the card rooms cannot keep up drawing from 10.80 to 11.60. When you go over 11.60 you are not spinning a good quality of yarn. Cut it to 10 if the management will let you.

Rollers should be covered with good grey flannel with a heavy cushion. Cots should be made a fraction smaller and drawn tight. It is a good policy to see the roller coverer break one occasionally when he is covering them. Use English skin and make a good smooth lap. Have the steel rolls polished and keep off all burrs, as this will keep the roller cost down. Have a gauge for different staples of cotton and set your rolls accordingly. Do not run too much twist in the roving. If the rolls are set too close and the roving twisted hard the yarn is sure to cockle. See that there is uniform weight on the rolls, and that the levers do not rub the front steel roll. Keep the steel rolls clean so as to prevent gouts from going through with the roving.

The overseer should require his second hand to see that every sec-

tion man has charge of as many frames as he can attend to properly and that he gives the frames his close attention.

In regard to speed, I think that a medium speed is best. Of course speed depends on conditions, such as humidity, draft, travelers used and the like. You can run higher speed on a short draft than on a long one. The same is true of cotton. If you are running good cotton you can put in less twist and get good strength. You have to put in more twist for poor cotton and therefore cut down the front roll and lose production. Speed is also governed by the length of the traverse, the size of the ring, etc. On the same number of yarn, higher speed can be run on a short traverse and a small ring than on a long traverse and a large ring. Of course fine numbers are supposed to be spun on a short traverse and a small ring, and coarse numbers on a long traverse and large ring. This is practical for good production.

I consider the travelers very important. In many mills travelers are lost simply from the lack of experience. Travelers run by circles, from 1 3-4 to 3 in. circles. A 3 in. circle traveler may be put on and cause the work to run well even where the rings and guides are off from 1-16 to 1-8 in. But what would be the result with a 1 3-4 in. circle traveler? It would bind in the circling, the rings soon wear sharp like a knife and cut the ends down, cut the fibres out of the yarn and make it uneven and weak. Many travelers would be lost in this way. A medium circle traveler is the proper traveler to use. First, have the spindles plumbed top and bottom and the guide wires set. This will kill the friction of the traveler and give a nice, even balloons when the ends run to the top and best of all it will save the mill money and prolong the life of the rings. Have the separators so as to center between the rings and when the traverses runs to the top, the separators will center the guide board. Separators should be set out even with the rail so as to prevent ends from ballooning around and clapping together. The best policy, as I said before, is to have the rings and guides in the pink of condition. It will enable you to run a heavier traveler and stop the end from clapping together, which loses travelers.

The bands and spindles are the next problem to solve. I have been in spinning rooms where they run every size band from the size of a finishing line to the size of a plow line. Brother overseers, have your bands made of roving and have them uniform so as to fit in the groove of the whirl. Do not allow your band boys to split the band too far down. Have it arranged so that when the band is drawn up to be tied it will split itself in the drawing up. Tie a flat knot and you will get the full surface of the band. Have the spindles well oiled with a uniform band and with well oiled spindles you will get the full benefit of the twist gear in use, which is a great help in making warp. The writer took a room which had been run by an expert spinner, in a mill where the looms had been standing for warps and filling. In three months I had every loom running and 144 warps on the floor. The weavers made better wages and we never had any trouble keeping help.



A Silica-Graphite Paint

Is the best protector for smokestacks, boiler fronts and metal work of every description

DIXON'S SILICA-GRAPHITE PAINT

Has been made for nearly fifty years in one grade on y-four colors. It has proven its great durability over and over again

Joseph Dixon Crucible Company

Established 1827

Jersey City, N. J.

DIXON LUBRICATING SADDLE CO.

BRISTOL, R. I.



Use Dixon Patent Stirrup Adjusting Saddles, the latest invention in Saddles for Top Rolls of Spinning Machines

Mfrs. of all kinds Saddles, Stirrups and Levers

Send for Sample

A. H. Washburn, President

F. H. Washburn, Treas. & Manager

WASHBURN PRESS

(RAY PRINTING CO.)

Commercial, Halftone and Color Printing

Engraving, Embossing and Lithographing

BLANK BOOKS AND SPECIAL RULED BLANKS
MADE TO ORDER

28 West Trade Street
Phone 342

Charlotte, N. C.

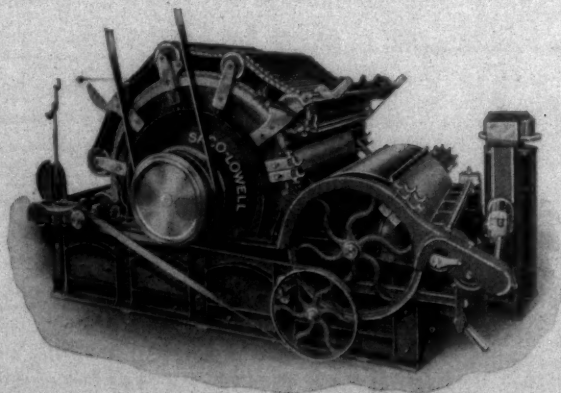
SACO-LOWELL SHOPS

Card Repairing

Card Flats Reclothed
Lickers-In Rewound

In a Splendidly Equipped Shop

Repair Work on Lowell Machine Shop and Saco-Petee Co. Cards
a Specialty



Southern Office

CHARLOTTE, N. C.

ROGERS W. DAVIS, Southern Agt.

The best solicitor for help, according to my experience, is good running work. As for a system for running a spinning room, cleanliness and oil never hurt the machinery. Have the roving wiped every day, and the rollers picked See that the section men have the rollers oiled after they are picked

(Continued on Page 16)

SOUTHERN TEXTILE BULLETIN

Offices: Room 912 Realty Building, Charlotte, N. C.

Published Every Thursday by
Clark Publishing Company

DAVID CLARK

Managing Editor

D. H. HILL, Jr.

Associate Editor

SUBSCRIPTION RATES

One year, payable in advance	\$ 1.00
Other countries in Postal Union.....	2.00
Single copies40

Contributions on subjects pertaining to cotton, its manufacture and distribution are requested. Contributed articles do not necessarily reflect the opinion of the publishers. Items pertaining to new mills, extensions, etc., are solicited.

ADVERTISING

Advertising rates furnished upon application.

Address all communications and make all drafts, checks and money orders payable to the Clark Publishing Company, Charlotte, N. C.

Entered as second class matter March 2nd, 1911, at the post office at Charlotte, N. C., under the Act of March 3d, 1879.

THURSDAY, MAY 1

Meeting of Southern Textile Association. Wasteful Methods in Cotton Manufacturing.

The meeting of the Southern Textile Association which is to be held at Charleston, S. C., on June 20th and 21st promises to be the largest in the history of the Association.

The meeting will convene on Friday afternoon, June 20th, at 2 o'clock and the program will be as follows:

Address of Welcome by Mayor of Charleston.

Response to address of Welcome by H. P. Meiklehan, of Lindale, Ga.

Address of President T. M. McEntire.

Paper on "Evolution of Cotton Card" by Chas. Mills, Consulting Engineer, Saco-Lowell Shops, Boston, Mass.

Paper on "Increasing the Efficiency of the Operative" by David Clark, Charlotte, N. C.

Paper on subject to be announced later by S. W. Oliver, Columbia, S. C.

Paper on "The Weave Room" by R. J. Smith, Henrietta, N. C.

The annual election and business meeting will be held Friday night and followed by a smoker.

Saturday will be given over to pleasure and a boat has been chartered and all the members will be given a free trip out on the ocean with music and refreshments on board. Full details will be announced by the program committee

We are publishing in full in this issue a paper read last week before the National Association of Cotton Manufacturers on "Wasteful Methods in Cotton Manufacturing" and it is a paper well worth reading.

It was written by Wm. H. Harris, Agent of the Slater Mfg. Co., Pawtucket, R. I., who is, we believe, the only Southern man now managing an Eastern mill. Mr. Harris is from North Carolina, and as mill engineer, machinery salesman, commission merchant and cotton manufacturer has had a varied but uniformly successful career.

He has been a student of cotton manufacturing and especially of the real or intrinsic value of cotton. He has long believed, as he says in his paper, that "as time goes on we will cease to buy cotton by the pound except as a medium of exchange, but the real trade will be in buying staples, somewhat in the manner that today coal is purchased by the large users. They do not buy by the ton except as a basis of exchange, but by the real intrinsic value, determined by the number of British Thermal Heat

Units in a given quantity."

No one can deny that the vast majority of mills buy cotton simply as cotton and without any thought relative to the amount of goods that can be produced with that cotton or the percent of waste that will be made.

The time will undoubtedly come when improved methods of grading and testing both for character and length of staple and percent of dirt will enable us to buy each bale of cotton in accordance with its real value.

Mr. Harris also said: "If I were asked to pass upon how any mill is being operated, with the privilege of examining only one department before expressing an opinion, I should request to be shown into the waste house."

There is much truth in this and we have often thought how much it would benefit many mills if the manager could take a trip to warehouses of the waste dealer and watch them open and sort out the waste from his mill.

We need to put more time and study upon the wasteful methods of cotton manufacturing for many mills lose enough by such methods to pay good dividends to their stockholders.

"Whether we believe in the much discussed question of the time—Efficiency Engineering—or not," said Mr. Harris, "I am satisfied that the manager who takes the position that there is nothing in it for him, will awake to the fact some years in the future that he was mistaken, and he is out of the race."

Medal Presented to Stuart W. Cramer.

A notable feature of the annual meeting of the National Association of Cotton Manufacturers was the presentation of a special medal to Stuart W. Cramer, of Charlotte, N. C., who was elected president of the American Cotton Manufacturers' Association at its annual meeting in Washington two weeks ago.

The medal was awarded to Mr. Cramer in appreciation of his work in preparing what was known as the yarn schedule in the Parker classification and rates, which was submitted to the Ways and Means Committee at the hearing in January. Probably no cotton mill man was so prominent in the recent movement against the proposed rates governing rates of yarns, as Mr. Cramer. The awarding of the medal at this time to Mr. Cramer by the National Association, it was commented, was a graceful compliment to the American Association.

The English View.

In regard to manufactured goods admitted under a duty of 35 per cent, there is apparently room for some expansion; but even this is problematical, as competition behind a tariff barrier does not in all cases work for the reduction of prices, because the manufacturers have been able to maintain them artificially. In any case, we shall be in a better position to supplement the deficiencies of American production, and possibly find a larger market for our better-class goods. —Textile Manufacturer of Manchester, England.

Textile Notes From India.

China is still India's best customer for cotton yarn, but it must be very anxious question to the Bombay mill owners as to how long the new Republic will remain so. In 1907 the receipts of Indian yarn at Shanghai amounted to 1,120,644 piculs of 133 1-2 pounds each; in 1908 there was a drop to 884,363s piculs; in 1909 an increase to 990,883; in 1910 a decline to 732,751; and

There is an increased demand in 1911 a decrease to 479,626 piculs. Drills and twills, especially in striped drills in four and five colors, in 24 yards lengths. Plain sized drills for Bombay are dull. It is stated that importers of American drills have recently sold fair quantities of Pepperill and other well-known marks. Consular report.

Amendments to Textile Schedule.

The amendments to the Underwood bill affecting the textile industry suggested by the Democratic caucus include underwear which in the original bill was 25 per cent and found in paragraph 270. This was increased to 30 per cent and changed to paragraph 266. The rate on indigo which was set at 10 per cent and found in paragraph 39 of the Underwood bill has been removed, putting indigo on the free list where it will be found in paragraph 519.

The 30 per cent rate on umbrellas under paragraph 398, has been increased to 35 per cent and changed to paragraph 394.

Plain woven fabrics of single jute yarn by whatever name known, reduced from 25 to 20 per cent and changed from paragraph 292 to 288.

Plain woven fabrics, not including articles, finished or unfinished of flax, hemp, or ramie, or of which these substances or any of them is the component material of chief value, including such as known as shirting cloth, put at 35 per cent and changed from paragraph 296 to 292.

All woven articles finished and unfinished, and all manufactures of flax, hemp, ramie or other vegetable fiber, or of which these substances, or any of them is the component material of chief value, not especially provided for in this section, put 40 per cent ad valorem in paragraph 293.

Bags or sacks, 25 per cent; colored or otherwise, 40 per cent, formerly under paragraph 293, put in paragraph 290.

**BYRD TEXTILE MACHINERY AND
SUPPLY CO.**

DURHAM, N. C.

Manufacturers of and Dealers in

MILL SUPPLIES, MACHINERY, ETC.

N. C. SELLING AGENTS

DOUGLAS & CO'S. MILL STARCHES.**CARDS,
DRAWING,****COTTON
MILL MACHINERY****SPINNING
FRAMES,****MASON MACHINE WORKS**

TAUNTON, MASS.

EDWIN HOWARD, Southern Agent
Charlotte, N. C.**COMBERS,
LAP MACHINES****MULES,
LOOMS.****PERSONAL NEWS**

W. A. Barnett is now fixing looms at the Converse (S. C.) Mill.

J. C. Bristow is now grinding cards at Aragon, Ga.

W. M. Brown, of Seneca, S. C., has become overseer of slashing at the Anderson (S. C.) Cotton Mills.

E. C. Hendrick, of Rockingham, N. C., has accepted a position with the Woodruff (S. C.) Cotton Mills.

T. W. Cole, of Whitmire, S. C., has become loom fixer at the Granby Mills, Columbia, S. C.

A. C. Medlin has resigned as overseer of spinning at the E. A. Smith Mfg. Co., Rhodhiss, N. C.

Frank Staten, of Winder, Ga., is now grinding cards at the Home Cotton Mills, St. Louis, Mo.

H. L. Jay has accepted the position of overseer of weaving at the Imperial Cotton Mills, Eatonton, Ga.

Mullens has resigned as overseer of weaving at the Alexander City (Ala.) Cotton Mills.

David Coloway has resigned as second hand in finishing at the Gibson Mills, Concord, N. C., to engage in the mercantile business.

W. W. Crenshaw is now overseer of carding at the Wymojo Mills, Rock Hill, S. C.

R. A. Stafford, of Draper, N. C., has accepted the position of overseer of spinning at the Dixie Mills, Mooresville, N. C.

C. C. Miller has resigned as overseer of dyeing at the Highland Park Mill, Rock Hill, S. C.

G. E. Piehoff, of the Dunson Mills, LaGrange, Ga., has accepted a position with the Dixie Mills of the same place.

Will Johnson, of Quitman, Ga., has accepted a position at the Dan River Mills, Danville, Va.

H. T. Crigler, of Spartanburg, S. C., has accepted the position of secretary of the Williamston (S. C.) Mills.

J. P. Carthen, of Atlanta, Ga., is now head loom fixer at the Dwight Mill, Alabama City, Ala.

P. M. Tice, of the Anderson (S. C.) Cotton Mills, has accepted a position with the Chiquola Mills, Honea Path, S. C.

J. L. Green, of Rosemary, N. C., is now fixing looms at the Lynchburg (Va.) Mills.

W. C. Lowdermilk has resigned as overseer of spinning at the Capitola Mill, Marshall, N. C., and is now overhauling at the Alpine Mills, Morganton, N. C.

Dan Arrington has accepted a position in the cloth room of the Unity Mill, LaGrange, Ga.

R. L. Seaford, of Elon College, N. C., has accepted the position of overseer of finishing at the Minneola Mill, Gibsonville, N. C.

David Long has been promoted from night second hand in spinning to night overseer of carding and spinning at the Tarboro (N. C.) Cotton Factory.

T. L. Ross, general superintendent of the mills at Kannapolis, N. C., was in Washington, D. C., last week to consult an oculist.

J. H. Harris has resigned as overseer of twisting and winding at the Pomona Mills, Greensboro, N. C., and moved to Goldsboro, N. C.

R. M. Miller, of Dan River Mills, Danville, Va., has accepted position of second hand in spinning at Amazon Mill, Thomasville, N. C.

J. J. Pauch, of Prosperity, S. C., has accepted the position of overseer of carding at the Southside Mill of the Arista Mills, Winston-Salem, N. C.

I. S. Tendell, of Winston-Salem, N. C., has accepted position of second hand in twisting room of Amazon Mill, Thomasville, N. C.

C. Laseter, who recently resigned as superintendent of the Payne Mills, Macon, Ga., is looking after the installation of the machinery in the new Bibb mill at Macon.

W. M. Greenwood, of Atlanta, Ga., has accepted the position of second hand in weaving at the Imperial Cotton Mills, Eatonton, Ga.

C. A. Pollard has been promoted from night overseer of carding and spinning to a similar position on the day run at the Tarboro (N. C.) Factory.

J. H. Huff, of the Ide Cotton Mills, Jacksonville, Ala., has accepted the position of overseer of spinning at the Willingham Mills, Macon, Ga.

W. T. Howard, of the Grendel Mill No. 2, Greenwood, S. C., has accepted the position of overseer of weaving at the Glen Lowry Mill, Whitmire, S. C.

J. H. Newsome has been promoted from section hand in carding to night second hand in spinning at the Tarboro (N. C.) Cotton Factory.

A. L. Johnson has resigned as second hand in carding at the Calvine Mill, Charlotte, N. C., to become overseer of picking at the Manetta Mill, Lando, S. C.

W. W. Potk, of Anderson, S. C., has accepted the position of engineer and master mechanic at the Imperial Mill, Eatonton, Ga.

Olin Johnson has resigned his position at the Delgado Mill, Wilmington, N. C., to become overseer of dyeing at the Highland Park Mill, Rock Hill, S. C.

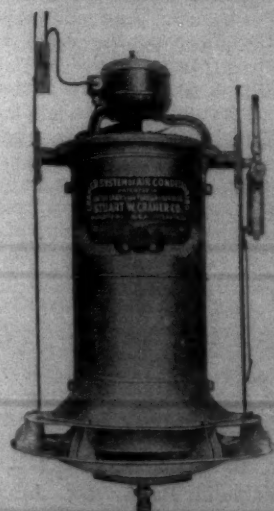
Jas. Tice, of Greenville, S. C., has resigned his position with Arnold Hoffman & Co. to accept one with the Southern Dyestuff & Chemical Co., of Charlotte, N. C.

Claud Gore, secretary and treasurer of the Great Falls Mfg. Co., Rockingham, N. C., who has been in a Baltimore hospital for the past month has returned home much improved in health.

S. E. Norris has resigned his position with the Gluck Mills, Anderson, S. C., to become second hand in the cloth room of the Anderson Mills, of the same place.

OVERFLOW PERSONALS, PAGE 10

C. E. Rodgers has resigned as overseer of carding at the Southside Mills, Winston-Salem, N. C., and gone to Woonsocket, R. I., in the interest of a patent which he is to put on the market.

**Cramer System of Air Conditioning**

WITH OR WITHOUT

Automatic Regulation of Humidity and Temperature

Moderate in Cost

Cheap to Operate

Yields Big Returns

STUART W. CRAMER

CHARLOTTE,

NORTH CAROLINA

MILL NEWS ITEMS OF INTEREST

LaFayette, Ga.—Five new buildings are being erected in the Walker County Hosiery Mill town.

Roswell, Ga.—The Mason Machine Works are now installing new spinning frames in the place of the old ones.

LaFayette, Ga.—The LaFayette Cotton Mills are building four new cottages for their help.

Knoxville, Tenn.—The Knoxville Knitting Mills have increased their capital stock from \$100,000 to \$300,000.

Jonesville, S. C.—The Wallace Mills are building a stand pipe, 75 feet high, near their mill, to be used for fire protection.

St. Louis, Mo.—The Lowell Bleachery, of Lowell, Mass., which has been operating an experimental plant here, will, it is reported, build a bleachery, the building and machinery to cost \$200,000.

Wilmington, N. C.—Alex. S. Yeager and associates are planning the organization of a company to establish a hosiery mill. It is said that the proposed company will have a capital of about \$25,000.

Frostburg, Md.—The Parker Hosiery Mills and Dyeworks of Portsmouth, Va., recently mentioned as having ordered additional machinery for their Frostburg plant state that they will install 20 double speed ribbers.

Greensboro, N. C.—The Pomona Mills, reported last week as having awarded the contract for additional machinery state that they will install 4,928 spindles, slasher, two spoolers and five speeders.

Keyser, W. Va.—The Klotz Throwing Co., of Scranton, Pa., will establish a plant here as previously reported. They have secured a building which is now being remodeled, and they will install 16 silk winding frames.

Lexington, N. C.—The Mason Machine Works have recently installed an equipment of looms in the Dacotah Mills and they are now in operation on chambrays. They will ship at an early date machinery for the 5,000 spindle addition to the Dacotah.

Greenville, S. C.—Camperdown Mill will construct an addition to its present plant, at cost of \$1,500. According to the application for a building permit for this construction, the addition is to be one story, ten feet high, of brick with twelve inch wall, with roof of tar and gravel. The ground plan of the addition is 26 feet by 105 feet.

Charleston, S. C.—A factory to manufacture overalls has been opened by J. J. DeGuenther, at 266 East Bay street. J. D. Harby will be manager of the factory.

Mariposa, N. C.—The Mariposa Cotton Mills were sold at public auction last week by Receiver C. E. Hutchison and bought by R. H. Morrison and associates. The new owners expect to install new cards, drawing frames and boilers and put the plant in operation about Sept. 1st.

Troy, N. C.—It is practically assured that a knitting mill will be erected at this place. Local people and outside capitalists have combined and it is expected that a company will be formed at an early date. Barna Allen, one of the promoters, is at the head of the movement.

Rock Hill, S. C.—The Hamilton Carhartt Manufacturing Company of Rock Hill has been commissioned with a capital stock of \$100,000. The company will do a general workingmen's clothes manufacturing business. The petitioners are: E. R. Partridge, Hamilton Carhartt, W. W. Carhartt and Hamilton Carhartt, Jr. This company will take over the overall manufacturing department of the Hamilton Carhartt Mills.

Chapel Hill, N. C.—The Blanche Hosiery Mills Co., which was incorporated the latter part of March with an authorized capital of \$100,000, of which \$15,000, has been paid in, has completed its plant, and installed some of the machinery, including 58 knitters, 14 loopers, 117 ribbers, etc.

The officers of the company are: W. S. Robertson, president; Blanche G. Lindsay, vice-president; W. E. Lindsay, secretary and treasurer.

New Orleans, La.—It is reported that the Maginnis Mills which have been idle for several years will be dismantled and the machinery sold through Alexander & Garsed of Charlotte. The Maginnis Mills were formerly a part of the Textile Mills Corporation and have 40,512 spindles and 1,303 looms.

Wendell, N. C.—The Wendell Knitting Mills Co., which was incorporated with a capital of \$20,000, has organized with the following officers: R. B. Whitley, president; M. A. Griffin, vice-president; O. L. Rowland, secretary-treasurer.

The company has awarded the contract for the erection of a brick building, to be 96 by 32 feet, and to cost about \$7,500. The initial equipment will include 50 knitting machines.

Talladega, Ala.—J. A. Hicks, president of the Highland City and the Chinnabee Cotton Mills at Talladega, who was in New York last week is quoted as saying that both mills are sold up to Oct. 1st on a profitable basis.

Shelby, N. C.—Last Tuesday fire broke out in the "opening" room of the Shelby Cotton Mill. The private water system at the mill waged a faithful fight, aiding the automatic sprays overhead and before the fire spread to another room it was under control. It is supposed that a match in a bale of cotton started the fire in one of the machines. Supt. J. C. Smith says the damage will be between \$400 and \$500.

Gastonia, N. C.—Fire which broke out about 10:30 o'clock one day last week in the cotton warehouse at the Holland Mill completely destroyed the house and a large quantity of cotton. Between 500 and 600 bales were stored in the warehouse and it is stated that none of it escaped injury from the flames and that a number of bales were totally destroyed. The fire company responded to the alarm and stayed of the scene until after one o'clock extinguishing the flames in the slow burning cotton. No estimate has been given out as to the damage sustained by the mill.

Charlotte, N. C.—George B. Hiss and E. A. Smith were on Tuesday named as receivers for the Thayer Manufacturing Company, by Judge James L. Webb sitting in superior court. The principal buildings of the company are located at Pay Creek, while the main offices are in Massachusetts. The action was a friendly one.

There was no contest over the petition for the appointment of a receiver or receivers, which was entitled in the action, "Robert Lassiter in behalf of himself and creditors and all other stockholders of the Thayer Manufacturing Company." The defendant company admitted all the allegations and the prayer contained in the petition.

Sylacauga, Ala.—The construction work of the Eva Jane Mills is under fast headway, and it is expected that the building will be ready for the installation of machinery by the first of October. The architect in charge of the construction work says that the building will be pushed through as rapidly as possible.

The brick work on the mill building which will be four stories high, is progressing very rapidly and some of the woodwork is under way. The building of the cottages and residences, which are mostly let to local contractors, is progressing very rapidly, there being a building completed almost daily.

Spartanburg, S. C.—The annual meeting of the stockholders of the Beaumont Manufacturing Company was held last week at the company's office. There were no changes made in the directorate. The resignation of R. E. McFadden as secretary was accepted and Bishop Thom was elected to that office. The regular semi-annual dividend of 3 1/4 per cent was declared, payable July 1.

The principal out-of-town stockholder in attendance was J. E. Reynolds, of New York, a capitalist who is interested in various cotton mills, yarn mills and other enterprises in this section of the South.

Graniteville, S. C.—At the annual meeting of the stockholders of the Graniteville Manufacturing Company held at Graniteville last week, all of the officers and directors were re-elected and the reports of the officers were found satisfactory.

A large party went over from Augusta and Aiken, and enjoyed the day in riding over the villages and looking over the mills. The Graniteville band rendered an attractive program, and the children, under the direction of Mr. Knight, gave a fine exhibition for the entertainment of the visitors.

The old officers and board of directors were re-elected as follows: T. I. Hickman, president and treasurer; A. H. Gibert, secretary; W. A. Giles, superintendent; F. P. Turner, assistant superintendent.

Directors — F. J. Pelzer, Jr., of Charleston, S. C., W. B. White of Augusta, S. A. Fortson of Augusta, C. E. Whitney of Augusta, E. S. Johnson of Augusta.

Baltimore, Md.—A modified plan for the refinancing of the International Cotton Mills Corporation of New York has been announced. It provides that the new company will get approximately \$7,925,000 from bankers and the preferred stock syndicate. This will be \$1,250,000 more cash than the first plan provided, and will involve \$2,000,000 less capitalization. The present stockholders will have the privilege of subscribing to the \$3,000,000 7 per cent preferred stock of the new company at par, with a like amount of the common stock as bonus. The remaining common stock, approximately \$5,800,000, will be exchanged for the present preferred and common stock. The bankers referred to are Blair & Co., of New York, and Lee, Higginson & Co., Boston, and the syndicate managers of the preferred stock syndicate are Robert E. Herrick and Edwin Farnham Greene, both of Boston.

The new company will be known as the International Cotton Mills and it is proposed that the directors be as follows: J. H. Wheelwright, W. H. Griffin and S. Davies Warfield, Baltimore; John B.

Dennis and Myron C. Taylor, New York, Edwin Barnham Greene, Harold D. Greene, Frank J. Hale, Robert F. Herrick, Albert L. Scott, and James J. Storow, Boston; F. P. Carpenter, Manchester, N. H.

Pavilion For Employees.

The Unity Cotton Mills, LaGrange, Ga., have just completed a beautiful pavilion in the center of the attractive park piece set aside for their employees in front of the mill plant. The pavilion is from an attractive design drawn by Roy Dalms. The floor is of concrete and the supporting columns of tapestry brick. The entire structure is roofed over with shingles stained a pleasing shade of green. Situated in the center of the park, which has been sodded in grass, and enclosed by privet hedge, the whole makes an exceedingly attractive plan of gathering for rest and recreation.

Government vs. Dwight Mfg. Co.

Taking of evidence was begun at Tampa, Fla., on April 25th before United States Commissioner Stephen Rogers in the case of the government against the Dwight Manufacturing Company, which operates the cotton mills in Alabama City, Ala.

A. Pachynakis, a Greek, is alleged by the government representatives to have been employed by this concern to entice Greek laborers, including women and children, to come to this country and work in cotton mills in competition with American labor. Peter Perinis testified that he and 12 others were induced to come to this country by representations of labor agents acting for the manufacturing company.

Spindles and Consumption.

The government shows that there were more spindles operating during March than for any month of the season, say (in round figures):

1912.	
September	29,796,000
October	30,020,000
November	30,090,000
December	30,147,000

1913.	
January	30,336,000
February	30,519,000
March	30,579,000

Thus it appears that while in January (the largest month's consumption) 30,336,000 spindles worked up 534,000 bales, in March, 30,579,000 spindles used only 485,000 bales, or in other words, an increase of 243,000 spindles in March worked up 49,000 bales less. The only way to account for this is that many mills have resorted to finer numbers.—Cotton and Fibre.



Speaking of Guarantees in Humidifier

We were the originators of guaranteed humidity. Couldn't see why you were not entitled to a result. But this platform sometimes adds to the selling price—because we figure the conditions that you nominate. If you don't nominate the same conditions, then naturally you can get a lower price elsewhere.

Here's a case in point. Customer gave job to competitor—36 heads. Has continued to purchase 50 more at so much per to attain the performance we guaranteed.

Our original price was higher—but the final price plus the bother was not.

THE G. M. PARKS CO.
FITCHBURG, MASS.

Southern Office, No. 32 West Trade St., Charlotte, N. C.
B. S. COTTRELL, Manager

Power for Raeford.

The Raeford (N. C.) Power and Manufacturing Co. will this summer develop a 500 horse power plant on Rockfish plant. The dam will be constructed several miles below Raeford. It is expected that the mill at this place will be run by the power developed.

Practical and Efficient Spinning.

The forty-five articles contributed to the contest on "Practical and Efficient Spinning" will be printed in book form and be ready for publication within the next two weeks.

A free copy of this book may be obtained by paying \$1.00 for one year's subscription to the Southern Textile Bulletin for extending an old subscription one year.

Cotton Mill Machinery Calculations by

B. Moore Parker

A new and very complete book giving all cotton mill machinery calculations from picker room through weave room. Has a large number of drawings and illustrations which explain the calculations. The price of this book is \$1.50 and it can be secured from the Clark Publishing Company of Charlotte.

Stephen A. Jenks Dead.

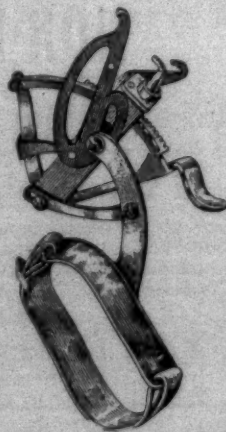
Stephen A. Jenks, of the firm of Fales & Jenks, manufacturers of textile machinery of Pawtucket, R. I. died at the home of his daughter in Providence R. I., last week at the age of 80 years. His death followed an illness of a week's duration. Mr. Jenks was born in Central Falls, R. I., on December 24, 1833, and was the son of Alvin T. Jenks, the original inventor of ring spinning. He had for many years been a leading figure in the textile machinery business and was very highly regarded by the cotton manufacturing industry.

An English View.

The Manchester Textile Mercury, the leading textile trade paper of Lancashire, calls attention to the drastic reductions in the textile schedules of the American tariff proposed in the Underwood bill, but advises English manufacturers to withdraw their jubilation until there is more definite assurances that the United States is to accept and retain such a tariff policy. The Textile Mercury recalls the fact that when the Wilson bill was passed twenty years ago the gratification of the English textile mills proved to be premature in view of the quick return of the United States to a protective tariff which was raised even higher than before.

The Byrd Knotter

Price \$20.00



Simple of Operation
Durability Guaranteed

Small Repair cost

Byrd Manufacturing Co.

DURHAM, N. C.

AMERICAN MOISTENING COMPANY

BOSTON, MASSACHUSETTS

WILLIAM FIRTH President

FRANK B. COMINS, Vice-Pres. & Treas.

THE ONLY PERFECT SYSTEM OF AIR MOISTENING
COMINS SECTIONAL HUMIDIFIER

JOHN HILL Southern Representative, Third Nat. Bank Building, ATLANTA, GEORGIA

Cotton Goods Report

New York.—Prices on gray goods last week continued soft and the sales were small. Goods are being let out second hand at some low prices, but where the mills are concerned, the market is generally steadier, as the manufacturers seemed to have concluded that further concessions in prices are out of the question and will not increase trading. Hence, mills in many cases have ceased to quote lower prices.

Some of the mills which make both gray and finished goods are looking into the export market with a view of trading with foreign customers on a large scale. The factors in the market who have looked into this matter think that the field can be developed to a greater extent.

Declines are also in evidence in the market for sheetings, these declines being about 1-8 cent. Thirty-six inch 56x60, 4-yard sold at 6 cents and 36 inch, 48x48s, 3-yard, sold at 71-8 cents. The market on practically all classes of standard goods has eased off since the new rates on cotton goods were proposed and trading has been light, especially at first hand, not only on gray goods, but on finished goods as well.

Three-leaf twills have shown declines of 1-8 cent during the last week; 39 inch, 68x76s 4.25 have sold during the week at 6 3-8 cents as against 6 1-2 cents, the price current a week ago; 39 inch, 68x76s, 4-yard have sold at 6 5-8 cents as against 6 3-4 cents; 43 inch, 68x76s, have sold at 6 3-8 cents as against 6 3-4 cents the week before.

The market on drills and sheetings also is off 1-8 cent from the quotations of the preceding week; 37 inch 3.95 drills have sold at 5 3-4 cents; 37 inch 3.25 drills at 6 5-8 cents; 30 inch 3.25 drills at 6 1-2 cents.

Staple cotton goods closed on a steadier basis than they were a little earlier in the week, especially such as heavy brown and colored goods, including tickings, denims, chevots, etc. On well known brands of bleached goods there is no disposition shown to name concessions, or to offer goods on memorandum, with promises of reductions later on.

Last week was another dull one in the Fall River print cloth market, although the inquiry was a little better than the previous week. The total sales were about 65,000 pieces, the most of which were spots. Varying styles figured in the trading, and the goods were mostly sold in small lots. There was generally no shading of prices which ruled all week. Manufacturers have apparently taken the stand that prices are at rock bottom and buyers who sought concessions of an eighth or sixteenth of a cent were turned down. The mill men are disposed, however, to dispose of goods

at the quoted prices, though they allow little profit, in order to prevent any accumulation of goods.

Buyers have hesitated to place very large orders at the present quotations, in spite of the fact that the manufacturers have made it plain that they will adhere firmly to the present prices. Only lots sufficient to tide them over have been taken by buyers.

Prices on cotton goods were quoted in New York last week as follows:

Prt. clths, 28 in std	3 7-8	—
28-in., 64x60s	7 518	—
4-yd, 80x80s	—	to 7
Gray goods, 39-in. 68	—	—
x72s	5	—
Brown drills, std	8 1-4	—
Shlgs, sou., std	8	to 8 1-4
3-yard	7 1-4	—
4-yard, 56x60s	6 1-8	to 6 1-4
Denims, 9-oz.	14	to 17
Stark, 8-oz., duck	14	—
Hartford, 11-oz., 40-	—	—
inch duck	16 7-8	—
Tickings, 8-oz.	13 3-4	—
Std fancy print	5 1-2	—
Std gingham	6 3-4	—
Fine dress gingham	7 1-2	to 9 1-4
Kid fin. cambric	4 1-2	to 4 3-4

Weekly Visible Supply of American Cotton.

April 25, 1913	3,302,008
Previous week	3,421,504
This date last year	3,945,824

Weekly Cotton Movement.

New York, April 25.—The following statistics on the movement of cotton for the week ending Friday, April 25, were compiled by the New York Cotton Exchange:

WEEKLY MOVEMENT

1913.	
Port receipts	86,104
Overland to mills and Canada	15,334
Southern mill takings (estimated)	40,000
Gain of stock at interior towns	28,198
Brought into sight for the week	113,237

TOTAL CROP MOVEMENT

Port receipts	9,175,463
Overland to mills and Canada	885,140
Southern mill takings (estimated)	2,395,000
Stock at interior towns in excess of Sept. 1	353,241

Brought into sight thus far for season... 12,808,844
6,894 bales added to receipts for season.

GRINNELL WILLIS & COMPANY

44-46 Leonard Street, New York

SELLING AGENTS

BROWN AND BLEACHED COTTON GOODS FOR HOME EXPORT MARKETS

RICHARD A. BLYTHE

(INCORPORATED)

Cotton Yarns Mercerized and Natural

ALL NUMBERS

505-506 Mariner and Merchant Building

PHILADELPHIA, PA.

The Desirability of the South

as the place to manufacture cotton goods is illustrated in the increase of 67% quoted by census department. We can offer attractive situations for those desiring to enter this field.

J. A. PRIDE

General Industrial Agent, Seaboard Air Line Railway

NORFOLK, VIRGINIA.

When you enjoy the economy of lubrication provided by



you discover that increased production means a great deal more than a slightly lower lubricant expense.

Figure out the saving involved in a 50% reduction of oil stains in your Carding, Twisting and Spinning. Then write us for test samples of NON-FLUID OIL for Comb-boxes, Roll Necks and Twister Rings.

SOLE MANUFACTURERS

New York & New Jersey Lubricant Co.
165 Broadway, NEW YORK

David Brown Company

Successors to

Weld Bobbin and Spool Company

Manufacturers of

Bobbins, Spools and Shuttles

FOR COTTON AND WOOLEN MILLS

Market and Foster Sts.

LAWRENCE, MASS.

The Yarn Market

Philadelphia, Pa.—There was a moderate amount of business put through the yarn market last week. There was some slacking off in the demand towards the end of the week, though it is reported that the volume of new business put through so far this month is about 35 per cent more than for the corresponding time last year.

There was some sales of 20,000 to 50,000 pounds, though most of the buying was from hand-to-mouth. Deliveries on old contracts, with a few exceptions, were good and the receipts of yarn from the South were good.

There was a moderate demand for carded cones, but the call for spot deliveries of 24s to 26s was less than for any other week for some time. Underwear manufacturers seem to be well covered on their most pressing needs and are no longer willing to pay what they call fancy prices for spot deliveries.

Two and three weeks ago as high as 25 cents was paid for 24s Southern frame spun cones for spot delivery; but last week the highest price was 24 1-2 cents. A sale of more than 20,000 pounds of 26s cones, May delivery, was made for 5 cents.

There is a fair demand for single combed yarns from underwear and hosiery manufacturers, and a few sales of 25,000 to 50,000 pounds were made. Sales of 14s were made for 27 cents for Southern frame spun cones; 27 1-2 cents for 16s, 18s for 28 cents, 24s for 29 1-2 cents, 30s for 33 1-2 cents. Eastern frame spun 18s sold for 28 3-4 cents and 26s for 30 3-4 cents.

Southern Single Skeins.

4s to 8s	18 1-2-19
10s	19 1-2-20
12s	20 —20 1-2
14s	20 1-2-21
16s	21 —
20s	21 —21 1-2
26s	21 —21 1-2
26s	23 —
30s	25 —25 1-2

Southern Two-Ply Skeins:

8s	19 —
10s	20 —
12s	20 —20 1-2
14s	20 1-2-21
16s	20 —21
20s	22 —
24s	23 1-2-24
26s	24 1-2-25
30s	25 —26
40s	32 —32 1-2
50s	43 —
60s	52 —53

Carpet and Upholstery Yarn in Skeins:

8-4 slack	20 1-2-
9-4 slack	9 1-2-
8-3-4 hard twist	18 —18 1-2

Southern Single Warps:

8s	19 1-2-
10s	20 —
12s	20 1-2-
14s	20 1-2-21
16s	21 —21 1-2
20s	21 1-2-
24s	23 1-2-
26s	24 —
30s	25 —25 1-2
40s	32 —

Southern Two-Ply Warps:

8s	19 1-2-
10s	20 —20 1-2
12s	20 1-2-
14s	20 1-2-21
16s	21 —21 1-2
20s	22 —22 1-2
24s	24 —24 1-2
26s	24 1-2-25
30s	25 1-2-26
40s	32 —33
50s	42 —

Southern Frame Spun Yarn on Cones

8s	20 —
10s	20 1-2-21
12s	21 —21
14s	21 1-2-22
16s	22 —
18s	22 1-2-23
20s	23 —23
24s	24 —24
26s	24 1-2-25
26s	24 1-2-25
30s	25 1-2-26

Two-Ply Carded Peeler in Skeins:

20s	25 —
22s	25 1-2-
24s	25 1-2-
26s	26 —
30s	26 1-2-27
36s	27 1-2-28
40s	34 —
50s	38 —
60s	44 —45
60s	49 —50

Single Combed Peeler Skeins:

24s	30 —30 1-2
30s	34 —
40s	40 —
50s	40 —46
60s	55 —56

Two-Ply Combed Peeler Skeins:

20s	29 1-2-
24s	31 —
30s	34 —35
40s	39 —41
50s	45 —46
60s	55 —66
70s	61 —66
80s	70 —73

A. M. Law & Co. F. C. Abbott & Co.

Spartanburg, S. C.

BROKERS

Dealers in Mill Stocks and other Southern Securities

South Carolina and Georgia Mill Stocks.

	Bid	Asked
Abbeville Cot. M., S. C.	100	
Aiken Mfg. Co., S. C.	35	
Amer. Spinning Co., S. C.	154	
Anderson C. M., S. C., pf	90	
Aragon Mills, S. C.	65	
Arcadia Mills, S. C.	91	
Arkwright Mills, S. C.	100	
Augusta Factory, Ga.	35	
Avondale Mills, Ala.	115	120
Belton Cot. Mills, S. C.	100	
Brandon Mill, S. C.	75	
Brogan Mills, S. C.	61	
Calhoun Mills, S. C.	51	
Capital Cot. Mills, S. C.	85	
Chiquola, S. C., com.	100	
Clifton Mfg. Co., S. C.	101	
Clifton Mfg. Co., S. C. pf	100	
Clifton Cot. Mills, S. C.	125	
Courtenay Mfg. Co., S. C.	90	
Columbus Mfg. Co., Ga.	92 1/2	100
Cox Mfg. Co., S. C.	100	
D. E. Converse Co., S. C.	85	
Dallas Mfg. Co., Ala.	110	
Darlington Mfg. Co., S. C.	75	
Drayton Mills, S. C.	6	80
Eague & Phenix Mill, Ga.	80	90
Easley Mill, S. C.	180	
Enoree Mfg. Co., S. C.	25	50
Enoree Mfg. Co., S. C., preferred	100	
Enterprise Mfg. Co., Ga.	65	70
Exposition Mill, Ga.	150	
Fairfield C. Mills, S. C.	70	
Gaffney Mfg. Co., S. C.	65	
Gainesville Cotton Mills, Go., common	80	
Glenwood Mills, S. C.	141	
Glenn-Lowry Mfg. Co., S. C.	101	
Glenn-Lowry Mfg. Co., S. C., preferred	86	
Gluck Mills, S. C.	80	
Granby Cot. Mills, S. C.		
Granby C. M., S. C., pf		
Graniteville Mfg. Co., S. C.	140	145
Greenwood C. Mills, S. C.	57	
Grendel Mill, S. C.	100	
Hamrick Mills, S. C.	102	
Hartsville C. M., S. C.	170	
Inman Mills, S. C.	105	
Inman Mills, S. C., pf	100	
Jackson Mills, S. C.	95	
King, John P. Mfg. Co., Ga.	80	86
Lancaster C. Mills, S. C.	130	
Lancaster C. Mills, S. C., preferred	97	
Langley Mfg. Co., S. C.	70	75
Laurens Mill, S. C.	15	
Limestone Mill, S. C.	125	133
Lockhart Mills, S. C.	60	
Marlboro Mills, S. C.	60	75
Mills Mfg. Co., S. C.	110	
Mollohon Mfg. Co., S. C.	90	
Monarch Mill, S. C.	115	
Monaghan Mills, S. C.		
Newberry C. Mills, S. C.	135	140
Ninety-Six Mills, S. C.	135	
Norris C. Mills, S. C.	102	
Orangeburg Mfg. Co., S. C., preferred	90	

Charlotte, N. C.

BROKERS

Southern Mill Stocks, Bank Stocks
N. C. State Bonds, N. C. Railroad Stock and Other High Grade Securities

North-Carolina Mill Stocks.

	Bid	Asked
Arista		
Arlington	141	
Avon		
Brown, common	115	
Cabarrus	150	
Cannon	151	
Chadwick-Hoskins	85	
Chadwick-Hoskins, pfd	101	
Cliffside	190	195
Cora	140	
Efird	115	126
Erwin, common	130	150
Erwin, preferred	105	
Gaston	90	
Gibson	101	105
Gray	121	
Florence	124	
Henrietta Mills	150	155
Highland Park	186	155
Loray	10	
Loray, preferred	90	
Lowell	181	
Lumberton	251	
Marion Mfg. Co.	100	
Mooreville	142	150
Modena	100	
Nakomis	200	
Patterson	125	
Raleigh	100	104
Roanoke	155	
Williamson	125	
Wiscasset	105	
Woodlawn	101	
Olympia Mills, S. C., pf		
Parker Cotton Mills, guaranteed	100	100 & int
Preferred	50	56
Common	16	20
Orr Cotton Mills	92 1/2	
Ottaray Mills, S. C.	100	
Oconee Mills, common	100	
Oconee Mills, pfd	100 & in.	
Pacolet Mfg. Co., S. C.	104	106
Pacolet Mfg. Co., pfd	100 & in.	
Parker Mills, pfd	50	56
Pelzer Mfg. Co., S. C.	135	
Pickens C. Mills, S. C.	100	
Piedmont Mfg. Co., S. C.	144	160
Poe F. W.) Mfg. Co., S. C.	105	115
Richland C. M., S. C., pf		
Riverside Mills, S. C.	25	
Roanoke Mills, S. C.	140	160
Saxon Mill, S. C.	126	
Sibley Mfg. Co., Ga.	64	
Spartan Mill, S. C.	110	112
Tucapau Mill, S. C.	280	
Toxaway Mills, S. C.	72	
Union-Buffalo, 1st pfd	30	
Union-Buffalo Mills, S. 2nd pfd	10	
Victor Mfg. Co., S. C.		
Ware Shoals Mfg. Co., S. C.	75	
Warren Mfg. Co., S. C.	80	85
Warren Mfg. Co., pfd	100	
Watts Mill, S. C.	106	
Williamston Mill, S. C.	97	
Woodruff C. Mills, S. C.	95	
Woodside C. Mills, S. C.		

Personal Items

S. J. Ludwig is instructor of the concert band of the Wiscasset Mills, Albemarle, N. C.

Lee Reed, of Lindale, Ga., has accepted a position with the Anchor Duck Mills, Rome, Ga.

W. R. Sullivan, second hand in weaving at the Gluck Mills, Anderson, S. C., purchased a home last week.

W. C. Cessna, formerly of Columbus, Ga., is now overseer of night carding and spinning at the California Mills, Oakland, Cal.

W. L. Phillips, of Gibsonville, N. C., has accepted the position of overseer of spinning at the Pomona Mills, Greensboro, N. C.

C. S. Cozart has resigned as overseer of spinning at the Pomona Mills, Greensboro, N. C., and moved to Roxboro, N. C.

John Hinshaw, of the Deep River Mills, Randleman, N. C., had his hand badly hurt in a folding machine last week.

J. B. Pipkin, secretary and treasurer of the Edna Mills, Reidsville, N. C., attended a meeting of the directors of the Marlboro Mills at McColl, S. C., last week.

C. E. Wilkes has resigned as secretary and treasurer of the Statesville (N. C.) Cotton Mills to take effect July 1st and will accept a similar position with the Loraine Mills, West Point, Miss.

Sailed for Europe.

Messrs. Robt. I. and E. F. Woodside, of Greenville, S. C., sailed last week from New York City via the Cunard line for a three months' tour of European countries as members of the American Commission which goes to investigate agricultural, banking and general business conditions on the continent and the British Isles. Robt. I. Woodside goes as the representative of the South Carolina Bankers' Association, while E. F. Woodside goes as the representative of the South Carolina Cotton Manufacturers' Association.

Girl Carried Over Shafting.

While at her work in the Rocky Mount (N. C.) Mill, last Tuesday, Hattie Womble, a 13-year-old girl was caught in the belting, carried over the shafting and fell from the ceiling to the floor. The girl's dress was hung in the belting and when the power was turned on suddenly, she was carried up with the belt, whirled over shafting and from there she was thrown to the floor. It was first thought that her injuries would prove fatal, but it developed that she was not seriously injured and will be out in a few days.

Alfred Hamilton Gets Three Years' Sentence.

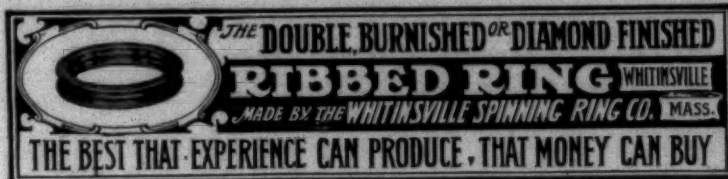
Alfred S. Hamilton, formerly president of the Trion Manufacturing Company, of Trion, Ga., was sentenced last Thursday to a term of

three years in the penitentiary for embezzlement of funds of the company, recently bankrupt. Sentence was imposed at Summerville by Judge Price Edwards, of the Talapoosa circuit, who presided over the Chattooga Superior Court last

December when Mr. Hamilton was convicted.

The penalty was a surprise to Mr. Hamilton's attorneys and friends, who believed that he would be given an alternative of paying a fine of \$1,000, especially in view of the action of the jury in asking that this be done on the grounds that the guilt proven had been merely a technical violation of law.

Attorneys for Mr. Hamilton gave notice of an intended appeal to the supreme court, which they say will reverse the verdict of the lower court.



Our Spinning Rings SINGLE OR DOUBLE FLANGE
START EASIEST, RUN SMOOTHEST, WEAR LONGEST
Pawtucket Spinning Ring Co.
CENTRAL FALLS, R. I.

HIGH GRADE MILL BRUSHES



Special Brushes Made to Order

All Kinds of Brushes Repaired

D. D. FELTON BRUSH CO.
ATLANTA, GA.

"MONARCH" Oak Belt

SOMETIMES a low priced belt is a GOOD BUY. SOMETIMES the most COSTLY belt there is is vastly the cheapest when measured by the COST PER HORSE POWER OF TRANSMISSION. YOUR appreciation of what you get from us will depend on whether you are buying pounds of belting or UNITS OF FACTORY EFFICIENCY. Send for Booklet.

THE BRADFORD BELTING CO.

CINCINNATI, OHIO

Branches: New York Philadelphia Chicago

THE ONLY FLYER PRESSER MAKERS IN THE SOUTH

W. H. MONTY, Pres. and Treas. W. H. HUTCHINS, Vice-President
HARRIE L. FALES, Secretary

THE FIRST AND ORIGINAL

SOUTHERN SPINDLE & FLYER CO.

CHARLOTTE, N. C.

The Responsible Concern of Good Reputation

OVERHAULERS, REPAIRERS AND MANUFACTURERS OF
COTTON MILL MACHINERY

WE ALIGN AND LEVEL SHAFTING WITH A KINKEAD OUTFIT

Bradford Soluble Grease



UNEXCELLED as a softening agent in the finishing of Cotton Fabric. Used extensively both by dyers of colored goods and bleachers in finish or white fabrics. Any degree of "softness" may be obtained by the proper use of this article. A neutral preparation. Write for recipe for finishing.

ARABOL MANUFACTURING CO.

100 William Street, New York

CAMERON MacRAE Southern Sales Agent CHARLOTTE, N. C.

Tied for Second Prize

(Continued from page 9.)

Have the rails brushed off clean and if you see a medium circle traveler you will find that the machinery does not get dirty if the spindles are plumbed and the guide wires set.

The way to get production is to keep the broke back ends up, and the belts on the tight pulley. Have the doffing arranged so that each boy can doff his half and hold him responsible for bad piecing so as to cut the waste down. Bad piecing gives trouble on the looms, winders, spoolers and anywhere it has to go. Give your doffers enough work to keep them in the mill. Make them keep the traverse clean, bobbins off the floor, etc. See that the spinners do not throw white cotton on the floor. Make the work run so that the spinners can sit down occasionally. It is a good policy in the spinning room to give a premium to the section hand who does best work on broken ends. I had a rule for the section hand to take tab at 11 a. m. and 5 p. m. on each section, and the man doing the best work got a premium. Therefore, I got results. The bobbins should have all the yarn upon them that they will hold and the builder should be adjusted so as to put the right taper on the bobbins and with a well trained set of doffers good results will be had.

Piecing up, if not done right, will cause a great deal of trouble in the spinning room. The spinners will complain of the work of the doffers, and other troubles will follow.

The proper humidity is a great help in spinning yarns. Keep the temperature at 70 to 76 degrees. With a good humidifying system you can keep your room at any temperature necessary.

Of course the room ought to run in a systematic way. One point in managing help may be mentioned. When a spinner stays out for a day see that her substitute picks the rolls and does the proper cleaning. Then when the regular spinner returns, she will find her frames in good condition and will not give trouble. There are a great many things to consider in the proper management of a spinning room and the little things are very important. If an overseer expects to run a spinning room with success he has got to stay on his job, and if he does so, the carder and weaver will have to stay on their jobs. My ambition is to run all the roving I can get and make the looms go to keep away from me.

Learner.

Want Department

Want Advertisements.

If you are needing men for any position or have second hand machinery, etc., to sell, the want columns of the Southern Textile Bulletin afford a good medium for advertising the fact.

Advertisements placed with us reach all the mills.

Employment Bureau.

The Employment Bureau is a feature of the Southern Textile Bulletin and we have better facilities for placing men in Southern mills than any other journal.

The cost of joining our employment bureau is only \$1.00 and there is no other cost unless a position is secured, in which case a reasonable fee is charged.

We do not guarantee to place every man who joins our employment bureau, but we do give them the best service of any employment bureau connected with the Southern textile industry.

For Sale.

300 H. P. Lane & Bodley Corliss Engine, 16-in. rope drive fly wheel right hand. Good condition. Write

Ensign Cotton Mills,
Forsyth, Ga.

Help Wanted.

Wanted: At once complete set of help to start our new Mill Number 2. Includes hands for card room, spinning room and weave room. Cast your lot with us if you are looking for health, wealth and happiness. Apply promptly to W. C. Cobb, Supt. Ware Shoals Mfg. Company, Ware Shoals, S. C.

Notice.

We are in need of more spoolers, spinners, doffers and weavers for night work. Good pay 55 hours per week. Apply to E. Montgomery, Supt. Summerville Cotton Mills, Summerville, Ga.

Wanted

One card grinder and spinning and spooling help. Advantages and wages good.

H. L. Holden,
Rocky Mount Mills,
Rocky Mount, N. C.

Wanted at Once.

Want at once, 10 good weavers for colored goods. Family help preferred. Work runs well. Good healthy place to live. Good wages for first class weavers. Address "C," care Textile Bulletin.

WANT position as master mechanic. Now employed. Have had 20 years experience and can furnish best of references. Address No. 333.

WANT position as overseer of spinning or second hand in large mill. Experienced both as second hand and overseer on from 4's to 50's yarns. Age 26. References furnished if desired. Address No. 334.

WANT position as overseer of slashing, beaming, warping, drawing and twisting-in department on plain or pattern work. Am now employed and will only change for better pay. Also understand pattern work on short chain. Address No. 335.

WANT position as overseer of spinning. Age 42. Married. Strictly sober. Have had long experience white and colored. Address No. 336.

WANT position as overseer of carding. Married. Age 30. 15 years experience in carding and now assistant overseer in large mill. Held present position for four years. Address 337.

WANT position as overseer of spinning. Age 29. 18 years experience in spinning room. 7 years as second hand. Held present position for 4 years. Good references. Address No. 338.

WANT position as superintendent. Have had long experience and handled large mills. Now employed, but prefer to change. Good references. Address No. 339.

WANT position as manager or superintendent of medium or large size mill. Fully qualified by experience and education for such position. Can furnish satisfactory references. Address No. 340.

WANT position as overseer of carding. Have 14 years experience. Married. Can furnish good recommendations and change on short notice. Address No. 341.

WANT position as master mechanic. Now employed in that capacity at large mill but prefer to change location. Excellent references. Address No. 342.

WANT position as overseer of weaving. Now employed on \$4.00 job and giving satisfaction but wish to change on account of health of family. Present employers as reference. Address No. 343.

WANT position as overseer of carding in yarn mill. Prefer a Georgia mill. Age 43. Have been 20 years in card room. Am the right man. Address 344.

QUALITY vs. PRICE In Picker Sticks

The IVEY BRAND Sticks Save Money in their durability—Save the Time of the Loom Fixer—Save the Stopping of the Loom to put in another—Save Making Flaws in the Cloth by Breakage. Every Stick Selected and Branded. Write us for prices.

IVEY'S WOODEN LUG STRAP—CHEAPER AND BETTER

IVEY MFG. CO., - Hickory, N. C.

WANT position as superintendent of large mill on either yarn. Age 47. Married. Now employed as superintendent of large mill but prefer to change. Good references. Address No. 345.

WANT position as superintendent of medium size mill or carder and spinner in large mill. Am now carder and spinner in 10,000 spindle mill, but want better position. Practical experience and also technical knowledge. Address No. 346.

WANT position as master mechanic. 21 years shop and repair experience. 4 years cotton mill master mechanic. Now employed. Good references. Address No. 347.

WANT position as overseer of spinning. 11 years experience as overseer on from 20's to 100's. Also experience on twisting and winding. Good references. Address No. 348.

WANT position as superintendent of yarn mill or carder and spinner. 20 years experience as overseer and superintendent. Good references. Address No. 349.

WANT position as superintendent. Have had long experience and am especially experienced on colored goods and finishing. Can furnish satisfactory references. Address No. 350.

WANT position as superintendent. Have had long practical experience as both overseer and superintendent and am well educated. Can furnish good references both as to character and ability. Address No. 351.

WANT position as superintendent of white or colored goods mill on long or short chain or raw stock. Married. Strictly sober. Been with present company 15 years. Superintendent 9 years. Reason for change, better salary. Can change on 30 days' notice. Good references. Address No. 352.

WANT position as overseer of weaving. Experienced on both plain and fancy goods. Now employed, but can change on short notice. Can furnish the best of references. Address No. 353.

WANT position as overseer of carding. 24 years experience and am now overseer of carding. 32 years old. Married. Good recommendations. Can change on short notice. Address No. 354.

PATENTS

Trade marks and Copyrights

Send your business direct to Washington. Saves time and insure better service.

Personal Attention Guaranteed
30 Years Active Service

SIGGERS & SIGGERS

Patent Lawyers

Suite 34 N. U. Bldg. Washington, D. C.

WANT position as overseer of spinning or of spinning and twisting. 18 years experience. 8 years as overseer. Now employed but have good reasons for wanting to change. Married. Age 33. Best of references. Address No. 355.

WANT position as superintendent dyeing. Would take position of overseer of large weave room at \$3.50 to \$4.00 per day. Address No. 356.

WANT position as carder or carder and spinner. 18 years experience. Good manager. Hustler for quantity and quality at low cost. Married. Sober. Best of references. Address No. 357.

WANT position as overseer of finishing. Have had long experience on a wide range of goods and am expert on starches and gums. Good references. Address No. 358.

WANT position as superintendent. Now employed, and can give present employers as reference. Long experience both as overseer and as superintendent. Address No. 359.

WANT position as overseer of spinning. Experienced on both coarse and fine numbers and can handle large room. Good experience and fine references. Address No. 360.

WANT position as carder in large mill at not less than \$3.50. Have run present job 18 months and can give present employers as reference. Can change on short notice. Address No. 361.

WANT position as overseer of carding. Long experience and am now employed, but have good reasons for wishing to change. Good references. Address No. 362.

(Continued on next page)

(Continued from last page)

WANT position as master mechanic. Now employed but for god reasons prefer to change. Good references from present employer. Address No. 363.

WANT position as master mechanic. Am expert machinist and have had long experience as master mechanic. Can furnish satisfactory references. Address No. 364.

WANT position as overseer of weaving at not less than \$3.00. Am now running a room and giving good satisfaction. Experienced on Draper looms. Good references. Address No. 365.

WANT position as engineer and machinist. 15 years experience in cotton mill steam plants and shops. Can furnish good references. Now employed and giving satisfaction but wish to change. Address No. 366.

WANT position as master mechanic at not less than \$3.00. Now employed and have long experience. Good references. Address No. 367.

WANT position as overseer of weaving. Have had long experience on both white and colored goods in successful mills. Can furnish good references. Address No. 368.

WANT position as superintendent. 12 years experience as overseer of weaving and assistant superintendent. Capable and qualified to run successfully. Can furnish excellent references. Address No. 369.

WANT position as superintendent. Fully competent and well recommended by present and past employers. Married. Age 40. Temperate habits. Experience extends over 20 years. Address No. 370.

WANT position as overseer of weaving. 23 years experience. Have run large rooms in S. C. Age 45. Good references. Prefer room with Draper looms. Address No. 371.

WANT position as engineer and master mechanic. 23 years experience. Strictly sober. Good references from present and past employers. Have family of spinners and doffers. Have seldom changed positions. Address No. 372.

WANT position as overseer carding. I am 38 years old, married, strictly sober, and good manager of help. Hustler after quantity and quality, and keep eye on the cost. Can give references. Address No. 373.

WANT position as overseer weaving. Now employed as second hand on fine fancy cotton goods. Extra on Draper looms. Can give good references from past and present employers. Address No. 374.

WANT position as carder at not less than \$2.50 per day. Now employed but want larger job. 8 years experience as 2nd hand and overseer. Good references. Address No. 375.

WANT position as overseer of carding in 5,000 or 10,000 spindle mill. Would accept second in large mill. Now employed, and can furnish good references. Address No. 376.

WANT position as superintendent of a small mill or carder in a large mill. Am now overseer of one of the largest card rooms in the South. Can give A1 references. Married. Have held present job for six years. Address No. 377.

WANT position as overseer of spinning. Have had long experience on both coarse and fine numbers and can furnish good references. Can come on short notice. Address No. 378.

WANT position as superintendent. Have been employed as carder in some of the largest mills in the South and given satisfaction, but wish position as superintendent. Now employed. Good references. Address No. 379.

WANT position as superintendent or superintendent and manager of either yarn or cloth mill. Am experienced on hosiery yarns. Competent and reliable. Can invest some capital in good proposition. Address No. 380.

WANT position as overseer of weaving. Prefer Draper, Stafford or plain looms. Experienced on duck, drills, chambrays, dobby weavers, etc. First class references. Sober and reliable. Now employed. Address No. 381.

WANT position as overseer spinning or twisting or both. Have had long experience. Strictly sober and good manager of help. Can change on a week's notice. Address No. 382.

WANT position as superintendent of yarn mill, denn warping and reeling, or overseer of spinning carding or twisting in large mill. Now employed. Can change on 10 days' notice. Address No. 383.

WANT position as carder or spinner or both. Now employed as carder and spinner in 10,000 spindle mill. Can furnish good references. Address No. 384.

WANT position as overseer carding at not less than \$3 per day. Can give good references and can change on six days' notice. Address No. 385.

WANT position as overseer of weaving. Have had long experience and am now employed but prefer healthier location. Can furnish satisfactory references. Address No. 386.

WANT position as overseer of spinning. Have had long experience and am now employed, but

A GOING HOSIERY MILL FOR SALE AT A SACRIFICE

A substantially constructed and well equipped Hosiery Mill in an aggressive Alabama city of 6,000 population, having a capacity of 550 dozen pairs of hose daily, is now offered for sale at a sacrifice price due to inexperienced management and lack of sufficient working capital.

The property comprises 2 1/2 acres of ground, several tenant houses, well constructed office, warehouse and factory buildings, equipped with 100 Mayo knitting machines, all necessary ribbers, loopers and sewing machines, 60 h. p. boiler and electric motor furnish sufficient power.

The plant is located on the main line of the

SOUTHERN RAILWAY

which affords excellent transportation facilities to all the large distributing centers.

The many orders now on hand and the fact that future deliveries cannot be promised, shows the good markets now existing for the factory's output.

This is an opportunity one will seldom find—a well established business, all equipment in first-class order, good location, big markets and a very low figure buys it all.

Refer to file No. 2495, and write for full particulars.

M. V. RICHARDS

Land and Industrial Agent Southern Railway

Room 125

WASHINGTON, D. C.

Wasteful Methods in Cotton Industry.

(Continued from Page 5)

what it is really worth under these conditions."

"The present condition with reference to sampling is not creditable to the industry and in the aggregate results in a considerable loss. Bales are sampled and re-sampled sometimes twice or three times on each side. The average size of the samples is not usually excessive but the aggregate amount of 'city crop' thus 'produced' is considerable, and an unnecessary drain on the industry. We are trying to encourage the more general use of the practice of selling on type, especially in staple cotton and hope that ere long, the official grades will be sufficiently inclusive so that a large part of the short staple crop can be sold on more definite description.

We are doing all that we can to encourage the more general introduction of gin compression, which not only results in a well protected bale, but does away with a large portion of present tare abuses. We are making a rather detailed study of the various types of gins in use and shall carry on ginning experiments with a view to furnishing growers with more complete and definite information on this subject."

"Perhaps the greatest waste from which the growers suffers at the present time is the failure to distinguish between grades at primary markets. We have found repeatedly in our investigations of primary market conditions, higher grades bring lower prices than low-

er grades. The farmer is uneducated in cotton grading, and so is the primary market buyer in many cases. In addition, those buyers who do know the grading end of cotton utilize this knowledge naturally for their own advantage and not to the advantage of the farmer."

"With reference to more efficient methods of picking, this is as you know a mighty difficult proposition. I watched a machine picker in operation during the past season, and hope that the persistent work which is being done on this machine will result in its ultimate perfection. There are other inventors in the same field, so that I believe we can look forward with certainty to a thoroughly practical machine picker before many years. In the meantime hand picking will always be used in gathering the highest qualities of cotton."

"We are also doing some work looking toward the more accurate description of the contents of the bale and hope to see the time when bales will carry a standard tare and have marked upon them the source of the cotton, and if possible also the grade and staple, determined by disinterested graders and staplers so that cutting bales for the purpose of sampling will be largely done away with. It is going to be difficult to bring about improvements in cotton handling and marketing because of the many and varied conflicting interests in the industry. Nevertheless, I believe that co-operation between growers, spinners, merchants, and bankers in the cotton belt will produce wonderfully improved conditions."

wish large mill. Can furnish good references. Address No. 387.

WANT position as carder in large mill or superintendent of small mill on hosiery yarns. Now employed and giving satisfaction but wish to change. Good references. Address No. 388.

WANT position as overseer of spinning. Now employed. 10 years experience. 40 years old. Married. Good reason for wishing to change. Good references. Address No. 389.

experience on yarns from 5's to 80's. Strictly sober. Good manager of help. Best of references furnish satisfactory references. Address No. 390.

WANT position as superintendent. Now employed but wish to change. Have had good experience on both white and colored goods and can furnish satisfactory references. Address No. 392.

CLASSIFIED LIST OF ADVERTISERS

ARCHITECTS—

Stuart W. Cramer.

AUTOMATIC BANDING MACHINES

Cole Bros.

BALING PRESSES—Boomer and Boschert Press Co.
Logemann Bros. Co.**BEAMERS—**

T. C. Entwistle Co.

BELTING—American Supply Co.
Bradford Belting Co.
Byrd Textile Machinery & Sup. Co.
Charlotte Supply Co.
J. E. Rhoads & Sons.**BOBBINS AND SPOOLS—**American Supply Co.
Byrd Textile Machinery & Sup. Co.
Charlotte Supply Co.
Draper Co.**BOBBIN CLEANING MACHINES—**

Lyon Mfg. Co.

BOILERS—

Dillon Steam Boiler Works.

BRUSHES—Felton (D. D.) Brush Co.
Mason Brush Works.**CARD CLOTHING—**W. H. Bigelow.
Jos. Sykes Bros.**CARBONIZING MACHINES—**

C. G. Sargents Sons Corp.

CARDS—Mason Machine Works.
Potter & Johnson Co.
Whitin Machine Works.
Saco-Lowell Shops.**CLOTH ROOM MACHINERY—**

Stuart W. Cramer.

COMBERS

Whitin Machine Works.

COMMISSION MERCHANTS—Grinnell Willis & Co.
Richard A. Blythe.**DOBBIES—**Mason Machine Works.
Kilburn, Lincoln & Co.
The Stafford Company.**DRAWING FRAMES—**Mason Machine Works.
Saco-Lowell Shops.
Whitin Machine Works.**DRAWING ROLLS—**

Metallic Drawing Roll Company.

DYESTUFFS AND CHEMICALS—American Dyewood Co.
Arabol Mfg. Co.
Bosson and Lane.
Danker & Marston.
Faberwerke-Hoechst Co.
Kalle & Co.
A. Klipstein & Co.
Seydel Manufacturing Co.
Chas. S. Tanner Co.**DYEING, DRYING, BLEACHING
AND FINISHING MACHINERY—**American Finishing Machinery Co.
C. G. Sargents Sons.
H. W. Butterworth & Sons Co.
Psarski Dyeing Machine Co.
Saco-Lowell Shops.**ENGINEERS—**

Stuart W. Cramer.

FIRE HOSE AND FITTINGS—American Supply Co.
Byrd Textile Machinery & Sup. Co.
Charlotte Supply Co.**FUEL—**

Climchfield Fuel Co.

HUMIDIFIERS—American Moistening Co.
Stuart W. Cramer.
G. M. Parks Co.**HUMIDIFYING MACHINES—**

C. G. Sargents Sons Corp.

KNOTTERS—

Byrd Mfg. Co.

LOOMS—Crompton & Knowles Loom Works
Draper Co.
Kilburn, Lincoln Co.
Mason Machine Works.
Saco-Lowell Shops.
Stafford Co.
Whitin Machine Works.**LOOM HARNESS, REEDS AND PICKERS—**American Supply Co.
Byrd Textile Machinery & Sup. Co.
Charlotte Supply Co.**LUBRICANTS—**Jos. Dixon Crucible Co.
N. Y. & N. J. Lubricant Co.**LUG STRAPS—**

Byrd Textile Machinery & Sup. Co.

MILL CRAYONS—American Supply Co.
Byrd Textile Machinery & Sup. Co.
Charlotte Supply Co.**MILL SUPPLIES—**American Supply Co.
Byrd Textile Machinery & Sup. Co.
Charlotte Supply Co.**NAPPING MACHINERY—**

Stuart W. Cramer.

OVERHAULERS—Dixie Spindle & Flyer Co.
Southern Spindle & Flyer Co.**PICKERS AND LAPPERS—**Kitson Machine Co.
Potter & Johnson Co.
Saco-Lowell Shops.**POWER TRANSMISSION MACHINERY—**

Stuart W. Cramer.

PREPARATORY MACHINERY—Kitson Machine Co.
Fales & Jenks Machine Co.
Potter & Johnson Co.**PRESSES—**Boomer and Boschert Press Co.
Logemann Bros. Co.**PUMPS—**

Stuart W. Cramer.

QUILLERS—

Whitin Machine Works.

RAILROADS—Seaboard Air Line.
Southern Railway.**RING SPINNING FRAMES—**Fales & Jenks Machine Co.
Mason Machine Works.
Whitin Machine Works.**RING TRAVELERS—**American Supply Co.
Byrd Textile Machinery & Sup. Co.
Charlotte Supply Co.
Dary Ring Traveler Co.**ROLLS—**Metallic Drawing Roll Co.
Saco-Lowell Shops.**ROVING MACHINERY—**Saco-Lowell Shops.
Woonsocket Machine & Press Co.
Whitin Machine Works.**SADDLES—**

Dixon Lubricating Saddle Co.

SEPARATORS—

Draper Co.

SHUTTLES—

Shambow Shuttle Co.

SIZING COMPOUND—Arabol Mfg. Co.
Byrd Textile Machinery & Sup. Co.
Danker & Marston.
A. Klipstein & Co.
Seydel Mfg. Co.
Chas. S. Tanner Co.**SLASHERS—**

Stuart W. Cramer.

SOFTENERS—COTTON—Arabol Mfg. Co.
New Brunswick Chemical Co.
A. Klipstein & Co.
Chas. S. Tanner Co.**SPINDLES—**Draper Co.
Easton & Burnham Co.**SPINNING RINGS—**Draper Co.
Whitinsville Spinning Ring Co.
Pawtucket Spinning Ring Co.**SPOOLERS—**Easton & Burnham Co.
Draper Co.
Whitin Machine Works.
Saco-Lowell Shops.**STARCH—**

Byrd Textile Machinery & Sup. Co.

STEAM ENGINES—

Stuart W. Cramer.

STEAM SPECIALTIES—Byrd Textile Machinery & Sup. Co.
Charlotte Supply Co.**TEMPLES—**

Draper Co.

TWISTERS—Draper Co.
Fales & Jenks Machine Co.
Saco-Lowell Shops.**WARP STOP MOTIONS—**Crompton & Knowles Loom Works
Draper Co.
The Stafford Co.**WEIGHTING COMPOUNDS—**Arabol Mfg. Co.
Byrd Textile Machinery & Sup. Co.
Bosson & Lane.
Faberwerke-Hoechst Co.
Danker & Marston.
A. Klipstein & Co.
Seydel Mfg. Co.
Chas. S. Tanner Co.**WARPERS—**Stuart W. Cramer.
Draper Co.
T. C. Entwistle Co.
Saco-Lowell Shops.**WILLOWS—**

C. G. Sargents Sons Corp.

WINDERS—Easton & Burnham Co.
Stuart W. Cramer.
Saco-Lowell Shops.

Joseph Sykes Brothers,

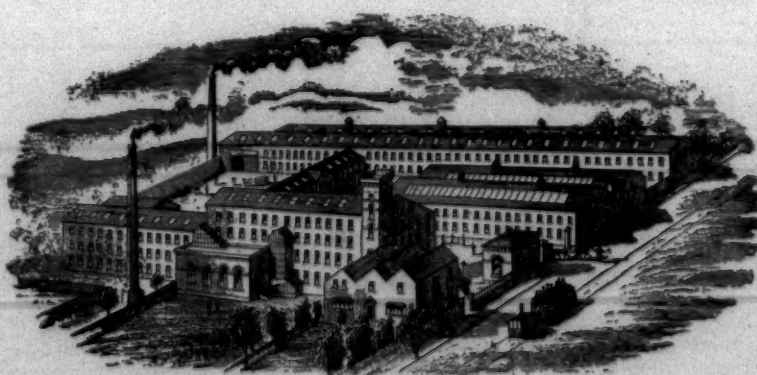
P. O. Box 88
Bell Phone 404**CARD CLOTHING MANUFACTURERS**Hardened and Tempered Steel Wire Plow Ground
Card Clothing

Revolving Top Flats Reclothed with our own Patent Steel Clip. Competent men to Clothe or Redraw Fillets. Licker-ins Rewound. Burnisher and Stripper Fillets, Dronsfield's Grinder Roller and Emery Fillets. All Regular sizes of Card Clothing always in stock and Shipped same Day Order is Received.

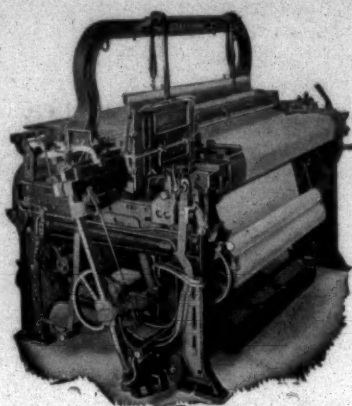
OFFICE AND FACTORY—4th FLOOR TOMPKINS BUILDING

R. D. THOMAS, Southern Agent

CHARLOTTE, N. C.



"IDEAL" AUTOMATIC LOOMS



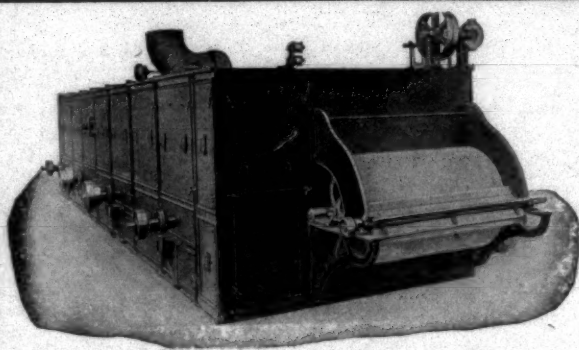
Unsurpassed in Simplicity, Durability and other Desirable Qualities. No special mill supplies required. They make less waste than any other loom.

They Produce Superior Cloth

We invite correspondence and investigation

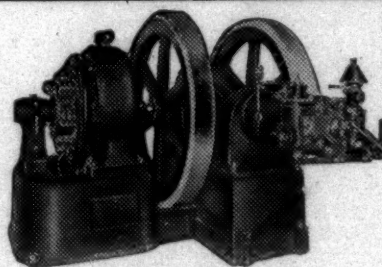
THE STAFFORD COMPANY
READVILLE, MASS.

FRED H. WHITE, Southern Agent
Realty Building, Charlotte, N. C.



Fireproof
Iron and Steel
Asbestos Insu-
lated
DRYERS

C. G. Sargent
Sons Corp.
Graniteville, Mass.
A. H. Washburn
Charlotte, N. C.



You "Otto" cut that
light "Bill"--HOW?
By installing an
OTTO Gasoline
Engine and Gene-
rator.

The Charlotte Supply Company
Representatives
CHARLOTTE, N. C.

Clark's Directory of Southern Cotton Mills

An accurate and reliable directory of the Southern cotton mills. Give capital stock, spindles, looms, names of officers including superintendents and buyers. Also gives class of product and kind of power used.

POCKET SIZE—PRICE \$1.00

CLARK PUBLISHING COMPANY, CHARLOTTE, N. C.

We are Pioneers in the Manufacture of Hand Threading Shuttlers
ORGANIZED 1883

UNION SHUTTLE CO.

DAVID BROWN, Proprietor

Manufacturers of

POWER LOOM SHUTTLES

OF EVERY DESCRIPTION



LEFT HAND

Fig 2



RIGHT HAND

Simplicity

Fitted with Eye for Woolen and Worsted Weaving
Self-Threading and Corrugated Cop Shuttlers a Specialty.

CORRESPONDENCE SOLICITED

Telephone Connections

Office and Factory—Corner Market and Foster Streets
LAWRENCE, MASS.

We carry a full line of General Supplies and make a
specialty of equipping new mills

WE MANUFACTURE

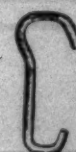
Oak Tanned Leather Loom Harness,
Belting. Weaving Reeds

AMERICAN SUPPLY COMPANY
PROVIDENCE, R. I.

MARCUS A. DARY
Agent and Treasurer

FRED H. DARY
Superintendent

DARY RING TRAVELER COMPANY



Manufacturers of High Grade

SPINNING AND TWISTING TRAVELERS
TAUNTON, MASSACHUSETTS

Southern Representative JOHN E. HUMPHRIES Walhalla, S. C.